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Bridging the Gap Between Theory and Practice: Critical Information Literacy Teaching in Canadian Higher Education

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Abstract and Lay Summary

The 2016 publication of the ACRL *Framework for Information Literacy* led to extensive discussions in the academic library community on the theories and practices related to information literacy teaching in higher education. In particular, discussions regarding librarians' understanding of new critical perspectives on information literacy have come to the forefront. Following a review of the literature on the concept of critical information literacy and library pedagogy, a gap was identified regarding the understanding of information literacy teaching theory and practices in higher education in Canada and, in particular, in the province of British Columbia (BC).

In the autumn of 2017, research was conducted to address the question: *How are librarians in B.C. higher education applying critical information literacy in their practice?* The mixed methods study involved participant librarians drawn from the 25 public higher education institutions in the province who provide leadership for their institution's information literacy programmes. The first phase of the research involved a survey which sought information on existing practices and librarian understanding of theory underpinning those practices, with a focus on the concept of critical information literacy. Of the total population of 25 public institutions, 24 survey responses were received from 22 institutions. For the second phase, 13 individuals, representing 13 different institutions (from the total population of 25 institutions), agreed to follow-up, semi-structured interviews. The in-depth interviews were conducted across institution types, sizes, and geographic regions in the province. Information related to awareness and application of theory in practice was gathered. An inductive approach was taken to analysing the qualitative data in both the surveys and the interviews, with the survey data forming the basis for the further exploration of themes emerging from the interviews. Quantitative data related to the particular institutions provided an opportunity to compare and contrast institutions, and to determine whether institution type and location has an impact on the application of critical information literacy in higher education teaching.

Themes arising from the research provide an understanding of how and why practices occur as they do, and recommendations for further research and information sharing are identified by the researcher and the participants. Creating a common definition for critical information literacy within the province, and professional development mechanisms that focus on librarian understanding of the theories underpinning critical information literacy, will improve the ability of librarians to work more closely with faculty to teach information literacy across the curriculum.

Declaration

I declare that this thesis has been composed solely by myself and that it has not been submitted, in whole or in part, in any previous application for a degree. Except where stated otherwise by reference or acknowledgment, the work presented is entirely my own.

Two publications referenced in this thesis (Schachter, 2018a, 2018b) are work produced from this PhD, and citations for these papers are provided in the reference list at the end of this thesis.

Signed: 

Date: June 23, 2019

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1. Introduction

The purpose of this research was to investigate librarian practices and theoretical understanding for the application of critical information literacy in higher education in British Columbia (BC), Canada. This research meets a need for greater knowledge in this area, particularly as there is little scholarship on the teaching of critical information literacy (or even information literacy itself) within the BC context. Library pedagogy and information literacy teaching are areas of development and tension amongst higher education librarians in BC and beyond. These tensions stem from challenges to the traditional perspective of librarianship as a 'helping' profession which focuses on addressing the developmental needs of students with regard to information access and retrieval, and which often is realised as tools-based training or library orientations. A growing argument within the literature and the profession promotes the position that higher education librarianship should incorporate more theoretical underpinnings to our work and explicitly incorporate developments in pedagogy and critical approaches to all aspects of librarianship.

Educational and funding policies, and economic pressures in public higher education have traditionally driven the approaches taken to library practices. These economic pressures and library budget constraints impact how librarians can effect change within their own practices and in their broader institutions. The lack of consistency of librarian professional roles within higher education, in Canada and elsewhere in the world, continues to drive the conversations regarding what is the role of librarian *vis a vis* teaching faculty, and how librarians can develop their practices in alignment with pedagogical developments in higher education teaching. Against the backdrop of those pressures on the library profession, this thesis contributes to the development of the scholarship of library pedagogies and critical information literacy, within the BC and Canada context and beyond. This research provides a strong foundation from which other researchers and academic librarians can explore further this topic, and will encourage more

robust discussions generally about higher education information literacy practices. Furthermore, it identifies how higher education librarians within British Columbia can be supported to gain an understanding of new theoretical approaches to library pedagogies, and engage in discussions related to critical practices in librarianship.

My Interest in Conducting This Research

The story of my research began in 2011, when I first entered the world of academic librarianship in the role of Director of Learning Resources at Douglas College, the largest baccalaureate college in British Columbia, Canada. Although I have been a librarian since graduating with my Master of Library Science (MLS) degree in 1990, I worked in special library environments, then public libraries, prior to entering higher education. In addition, since 2000, I have worked as an administrator and in executive positions, rather than as a librarian practitioner, which narrowed my focus of professional development activities to operational or leadership endeavours.

One of my enduring aspirations has been to continue my formal education, and so in 2011 I began to explore potential areas for research as I engaged with the literature on academic librarianship. Given the context of the teaching intensive college library, I began to focus on information literacy as an area of interest and, in particular, I alighted upon the Webber and Johnston's (2006) concept of the "information literate university". This concept offered leadership potential for my role within my institution, but also led me to consider the evolving nature of information literacy teaching in higher education within British Columbia. As I began to look into embarking on a Doctorate, I returned to information literacy as a topic for potential research.

As I progressed through my doctoral programme, the timing of my programme coincided with significant developments in information literacy teaching within North American higher education. Specifically, the

Association of College and Research Libraries (ACRL) was undertaking the redevelopment of their *Information Literacy Competency Standards for Higher Education* (ACRL, 2000), with the intention of incorporating new pedagogical and learning theories into these information literacy teaching guidelines. The *Standards* had been the foundation of information literacy teaching in higher education in the United States and Canada since their publication in 2000, but over time they had been subject to criticism because of the implied prescriptive and instrumental approach to information literacy (IL) teaching (Downey, 2016). In the years following the publication of the *Standards*, library associations elsewhere in the world, notably in Australia and in the UK, published their own IL guidelines which offered alternative approaches to IL teaching. Many of these updated guidance documents incorporated a number of theoretical underpinnings to IL teaching. Over time, it became apparent to the members of the ACRL that their *Standards* should be reviewed and that further thought should be put into the development of a new framework for understanding and teaching IL in U.S. higher education (ACRL 2015). A new model, *The Framework for Information Literacy (The Framework)*, was published in 2015, and it immediately became the focus of discussion, debate, and critique amongst academic librarians. The *Framework* proposed a new way – a less prescriptive way – of conceiving of the practice of teaching IL. This new approach, in an effort to update the teaching of information literacy to meet changing expectations in American higher education institutions, relied on an awareness and application of pedagogical theories, including threshold concepts, as well as the introduction of more critical elements into IL teaching. The *Framework* took a critical look at information literacy theory and practices and incorporated the concepts of dispositions and learning theories. As a set of guidelines rather than standards, the *Framework* encouraged librarians to help students to ‘cross thresholds’ in their building of knowledge around their own IL and research practices (ACRL 2015). Following the publication of the *Framework*, ACRL put out a call for researchers and experienced IL teaching academic librarians to contribute to the understanding of the new *Framework* and its practical application.

In Canada there is no overarching academic library authority that may be considered comparable to the ACRL, and so many Canadian academic librarians voluntarily participate as members of the U.S.-based Association of College and Research Libraries. Without a national academic library association, and with very regional discussions groups related to academic librarianship across our vast country, most academic librarians look to the ACRL for leadership in the field of higher education librarianship. In developing my research proposal, I conducted a literature review in which it became clear that a gap exists in the literature related to the understanding of library practices and their theoretical underpinnings, both within Canada and in British Columbia (BC) in particular. While initially I planned to conduct research related to the application of the new *Framework* within the BC context, I became particularly interested in the potential of the some of the other fundamental discussions of information literacy, particularly the developing concept of ‘critical information literacy’ (Luke and Kapitzke, 1999; Elmborg 2006; Downey, 2016), within the teaching practices of higher education. Canadian academic institutions are distinctive in a number of respects – which are explored in the following chapter – so the teaching of information literacy within the Canadian academic library context deserves examination and discussion. Contributing to the discussions of Canadian academic libraries’ practices, and to the theories and values that underpin those practices, are the intended outcomes from this research.

Contributors to the Literature on Critical Information Literacy

As noted above, research into critical information literacy is a recent development in the scholarship of library pedagogy and information literacy teaching. There are a number of notable researchers and authors who critique library practices and who have led the development of and debates on critical approaches to library pedagogy and librarianship. The work of important researchers, which is highlighted in the following sections, has contributed significantly to the development of the concept of critical

information literacy, and their research and scholarship are reviewed critically in the *Literature Review*.

Two of the earliest contributors to the conversations on the need to develop a more critical approach to information literacy teaching are Allan Luke and Cushla Kapitzke (1999). They envisioned that “critical information literacy can encourage and enable learners to systematically reposition themselves in relation to dominant and non-dominant modes and sources of information” (p.486). Their call for the development of a more critical approach to information literacy teaching spurred discussions about what this ‘critical’ approach might mean to the work of higher education librarianship. Troy Swanson’s contributions to the literature (2004, 2005, 2011) have also called for a critical information literacy approach to information literacy teaching as well as more ‘radical’ practices in librarianship, overall. James Elmborg (2006), an early contributor to the conversation on critical information literacy, examined the implications of adopting critical pedagogical approaches for library practices. Heidi Jacobs (2008) Maria Accardi, Emily Drabinsky and Alan Kumbier (2010) were instrumental in arguing the need to apply critical pedagogical approach to library pedagogy. Barbara Fister (2006, 2013, 2015) helped to define information literacy with respect to libraries and the digital nature of information, and she has contributed to the evaluation of the new ACRL *Framework* and its potential for developing information literacy teaching.

While publications in traditional journals are one route for developing the conversations and scholarship on critical information literacy, since the early part of the century a large number of librarians have been discussing critical perspectives of librarianship and library practices using blogs, websites and listservs. Websites such as *In the Library with a Lead Pipe*, and the #critlib listerv are two examples of where librarians have been discussing social justice, feminist pedagogy, Lesbian, Gay, Bisexual, Transsexual and Queer (LGBTQ) pedagogy, and critical theory as it applies to librarianship. Significant contributions to the discussions on critical information literacy in

these open spaces also include those of Tewell (2016, 2018) who has published both through his own blog and with scholarly publications and who has continued to explore the development of critical information literacy practices within American higher education (Tewell, 2018). Annie Downey (2016) conducted a study of critical information literacy amongst higher education librarians, and has contributed significantly to the literature in her attempt to bring together the diverse conversations and arguments related to critical information literacy, published in traditional and non-traditional sources.

The work of these significant contributors to the development of the concept of critical information literacy within higher education librarianship, along with others who have contributed to the conversations, are reviewed more fully in the Literature Review chapter which follows.

Research Questions

The overarching research question that has driven this research is: *How are librarians in BC higher education applying critical information literacy in their practice?* This question was intended to explore librarians' understanding of the term 'critical information literacy' as well as their application of critical practices in their information literacy teaching, reference and research support – all aspects of higher education library pedagogies. A number of sub-questions were developed to address specific aspects of this question:

- a. How do academic librarians understand the term 'critical information literacy'?
- b. How do academic librarians understand the role of critical information literacy in their instructional practices?
- c. How are librarians using the critical information literacy aspects of the ACRL *Framework* in their teaching?
 - i. What, if any, *Framework* concepts do they find the most challenging to understand and implement in practice?
- d. What challenges do academic librarians report?

Significance of the Study

Information literacy teaching is at a critical junction today, influenced by evolving higher education curricula with a focus on specific learning outcomes; the incorporation of new technology and social media into higher education teaching; and the publication of the ACRL *Framework for Information Literacy*, amongst other factors. Changes both within institutions and across higher education sectors have created an environment in which the discourse of librarianship is heavily influenced by developments in pedagogy, learning theories, and how librarians can more fully advance the concepts of library pedagogy and practices. In Canada, while there are many librarians engaged in information literacy teaching and scholarship, there has been a relatively small set of publications related to information literacy teaching beyond individual institutions, and none that inquires into the practices of information literacy teaching across an entire public education sector within a Canadian jurisdiction. This means that this current research study is the first research of its kind within the higher education context in Canada that specifically addresses the public academic institutions throughout the province of British Columbia. This research contributes to the literature related to studies that have been conducted on information literacy teaching practices within individual institutions (Dakshinamurti and Braaksma 2005; Trescases, 2008) or within other Canadian jurisdictions (Cull, 2005; Reed, Kinder, and Farnum, 2007; Goebel, Neff, and Mandeville, 2007). Neither the higher education environment in BC, nor specifically the understanding and application of *critical* information literacy amongst Canadian librarians, have been explored before, so this research contributes to the development of understanding about information literacy teaching within Canada. The scholarship gap that has been identified regarding BC and Canadian information literacy teaching is addressed fully in the Literature Review.

Terminology and Definitions of Critical Information Literacy

In this thesis I discuss the development of the term ‘critical information literacy’, and specifically seek to identify the language employed by librarians, in addition to defining other terms related to higher education library practices within BC. Terms and acronyms, and their localised usage, are explained within the context of the chapters, as well the language related to information literacy teaching in BC. With regard to the different definitions of the term ‘critical information literacy’, an overview of the history of the development of this term is provided in the literature review, including an account of the emergence of the term by Luke and Kapitzke (1999), which seeks to “encourage and enable learners to systematically reposition themselves in relation to dominant and non-dominant modes and sources of information” (p.486). The literature review highlights current developments in critical information literacy and its definition, including a refined definition by Tewell (2018) as “an approach to education in library settings that strives to recognise education’s potential for social change and empowers learners to identify and act upon oppressive power structures” (p.11).

For the purposes of this research, I further define critical information literacy teaching within higher education libraries as **library teaching, regardless of context, that addresses critical consideration of information, its source and authority, and the implications for developing social justice awareness, including the power structures which are inherent in information production and use**. This thesis explores the roots of critical information literacy teaching, its developments, and the application of critical approaches in practice in BC higher education today.

Development of Library Pedagogy and Critical Information Literacy

As I discuss more fully in the literature review, information literacy as a concept developed as a response to the explosion in digital publishing and

the rise of technological tools that forced a mediated approach to information access and retrieval (Eisenberg, Lowe and Spitzer, 2004; Whitworth, 2009; Pinto, Cordon and Diaz, 2010; Whitworth, 2014; Leaning, 2017). Credited to Paul Zurkowski in 1974, the term was taken up with great enthusiasm by librarians across all sectors (public, private and higher education) in the latter decades of the 20th century. The recognition of barriers to accessing and utilizing digital information for citizens across the world, described as the digital divide, subsequently led to the development of information literacy policy statements by a number of governmental and non-governmental bodies globally. Reducing the digital divide, which was seen as a barrier to accessing information to meet an identified information need, was one aspect of this movement. The second focus involved addressing the conceptual barriers to access, including the processes involved in identifying an information need, accessing the required information, and being able to use the retrieved information. Recommendations encouraging the teaching of information literacy skills in schools, public libraries and higher education and, more recently, in the workplace, became a common theme to ensure that citizens could access the information that they need to contribute fully within modern society (IFLA, and UNESCO, 2005).

Critical information literacy seeks to transform information literacy beyond these initial definitions, moving it away from a skills-based, instrumental teaching approach to one that encourages students to develop their own critical responses to information to which they are exposed, or to which they seek. CIL approaches draw on theories from critical pedagogy and critical literacy in an attempt to acknowledge and equalise power structures, and they include liberatory aims. They are informed and shaped by the understanding that there are power structures inherent in pedagogy and in information creation and dissemination, and recognise that information is socially constructed (Graves, McGowen and Sweet, 2010; Elmborg, 2016). The development of critical information literacy was predicated on the formal recognition that library practices are not neutral within culture and society, and that librarianship has a fundamental responsibility to address social

justice issues (Accardi, Drabinski and Kumbier, 2010; Downey, 2016; Gregory and Higgins, 2017). Because critical information literacy is essentially based on the scholarship and literature of critical pedagogy and critical literacy, and because of the interrelationships with these other literatures, an overview of the literatures related to the theories and practices of critical pedagogy and critical literacy are included to situate critical information literacy for the reader.

Developments in social justice awareness, and in the forms which social justice can take in modern society, have had a direct impact on the development of critical pedagogy and critical literacy concepts and practices. These, in turn, have led to the development of the concept of critical librarianship (Bales, 2017). Paulo Freire is credited with raising awareness of the teacher's responsibility towards enabling students to form critical reflections on their learning and their ability to contribute their voices to effect a transformation in society (Darder, Torres and Baltodano, 2017). The literature on critical pedagogy and critical literacy, from such scholars as Henry Giroux, bell hooks, Ivan Illich and Peter McLaren, was fundamental to the development of the critical conversations within librarianship (Sinkinson and Lingold, 2011; Bales, 2017). From these early influences, librarianship began to develop an understanding of the potential for critical librarianship, from which a new form of information literacy – critical information literacy – began to be considered (Luke and Kapitzke, 1999; Swanson, 2004; Elmborg, 2006).

As an area of development in the 21st century, the scholarship of information literacy pedagogy, including advances in library theory and critiques of practice related to teaching, is addressed in the literature review. The development of the ACRL *Framework for Information Literacy*, while not explicitly an information literacy model to support *critical* information literacy, nonetheless has been influential in engaging librarians in discussions on teaching and learning theories, and in driving the adoption of new library pedagogies and theories related to information literacy in North American

higher education. The ACRL *Framework*, as an influential document within higher education teaching in North American, therefore, is reviewed from its inception to its current critiques. The final section of the Literature Review chapter engages with the literature on higher education library practices in BC and Canada, noting the limited research and scholarship in this area and identifying a gap which this research begins to fill.

The key debates in the literature on critical information literacy today involve discussions of the existence of a 'critical' information literacy, its definition and its purposes (Downey, 2016). Much of the literature is concerned with how to apply critical information literacy, and at the same time, addressing the implications of adhering to expectations of accountability within neoliberal institutions. In particular, the impacts of accountability within higher education institutions have been explored, as has the question of whether libraries' accountability requirements (such as the need to create measurable outcomes for our work as required by mandate or accreditation purposes) means we cannot achieve true critical reflections of information literacy practices (Gregory and Higgins, 2013). Because librarianship is an interdisciplinary profession, the identification of theories that underpin and inform library practices are contested. Librarians appear to be aligning across a spectrum of oppositional positions, from a discourse calling for more understanding and application of theory into library practices, to that which considers librarianship to be more of a pragmatic or practical profession, and which must therefore focus on the development of practices (Gregory and Higgins, 2013). Significant discussion about critical theory and its place in librarianship, given the context of our roles within our institutions, is one key area of disagreement. Debates in online communities and in the literature regarding the replacement of the ACRL *Standards* with the *Framework for Information Literacy* have also been extensive and sometimes contentious (Creed-Dikeogu, 2014; Berg et al., 2015; Fister, 2006, 2015; Bombaro, Harris, Odess-Harnish, 2016; Gross, Latham and Julien, 2018), as have been the discussions surrounding the ACRL *Framework's* role in advancing the development of new theories into information literacy practices

(Bauder and Rod, 2016; Jackman and Weiner, 2017). The conversations promoting a more critical information literacy approach to information literacy is another area that is currently in development within the scholarship of librarianship, and is also addressed in the literature review.

Roadmap to the Thesis

The thesis is organised in the following way. First, it provides a context which describes the higher education sector and academic librarianship within British Columbia (BC), Canada, aiding the reader by situating the research. The context also identifies the scope of the population for the research, involving the lead teaching librarian at each of the 25 public higher education institutions in the province. A review of the work of key scholars in the field of information literacy in higher education, and of critical information literacy in particular, follows the initial context. The literature review begins by providing a history of the development of information literacy, and of the influences of critical pedagogy and critical literacy as two theoretical approaches to the evolution of critical information literacy in higher education in the 21st century. Also highlighted are the current debates regarding critical information literacy as a concept, and its potential to transform the way librarians teach information literacy in higher education. The recent publication of the ACRL *Framework for Information Literacy* is analysed as an influential document for higher education librarians, and the changes it attempts to promote within higher education libraries involving learning and teaching theories are highlighted.

The mixed methods approach, which was devised for this current research study and which involves documentary analysis, a survey questionnaire and interviews, is described and justified in the *Methodology* chapter and is validated as the way of generating the richest data sets for this research. A detailed account is then provided of key methodological decisions and considerations including: sampling; survey questionnaire design; interview schedule design and the approach to interviewing that was adopted; piloting

the survey questionnaire and the interviews; transcription of interviews; coding and analysis of data that were collected; development of themes; generalisation; validity, reliability and trustworthiness; reflexivity; insider/outsider position; and key ethical considerations. Following the *Methodology* chapter, the *Findings* chapter presents and interprets the data that were generated using the three approaches, and makes connections with the findings from other research into information literacy teaching and critical information literacy practices. Finally, in the *Conclusions* chapter connections are made between the data and the findings, and recommendations for the higher education libraries in BC are provided, based on these findings. The chapter concludes by identifying the limitations of the research, and considering what might be fruitful directions for future research studies.

BC Higher Education Context

For the purpose of situating the research for the reader, this thesis provides a chapter describing the context of the British Columbia (BC) higher education sector (the sector): the nature of academic libraries within the Canadian provincial educational system; an overview of the populations served by the public educational system; the governance of the sector in BC and Canada; and the nature of the higher education libraries (called academic libraries) within British Columbia's higher education sector. The range in size and mandate of the 25 public higher education institutions in BC are described and help to provide deeper understanding and context for the findings and the discussion that follow.

Literature Review

The literature review considers the research and scholarship into higher education librarianship that have led to the development of critical information literacy, with a focus on North American higher education library teaching practices. Because of its influence on the teaching practices of higher education librarians in North American, and the implications of applying more critical practices in information literacy teaching, a review of

the literature related to the ACRL *Framework for Information Literacy in Higher Education* is also included.

A history of the concept of information literacy (IL) serves to ground the subsequent discussions related to critical information literacy (CIL), which necessarily requires reviewing the published research into critical literacy, critical pedagogy, and critical librarianship.

Methodology

The *Methodology* chapter outlines and justifies the use of a mixed methods approach to the research, based on my interpretivist epistemological position and the potential of this approach to gather a rich set of data (Creswell, 2014). It discusses the explanatory design approach (Creswell and Plano Clark, 2007) adopted, and details the three phases to the research with three methods of data gathering: documentary content analysis of policies influencing information literacy teaching in BC higher education institutions and content analysis of the ACRL *Framework* to identify aspects of the Frames that explicitly support critical information literacy; survey questionnaires distributed to a purposive sample of higher education teaching librarians representing information literacy teaching at each of the 25 public institutions in the province; and interviews with a self-selected sample of 13 public higher education librarians from the population of respondents to the survey. As a researcher, throughout these phases I maintained a reflexive stance, and remained alert and sensitive to my position as both an insider and an outsider, and this is described more fully in the Methodology chapter.

Details regarding the specific methods adopted are provided, including the selection of documents; data collection methods involving the survey instrument and its structure; interview design and processes; and populations and sampling decisions. A section on transcription describes and justifies the choices made to undertake a naturalist approach and to anonymise the participants in the research. The discussion then turns to

quantitative and qualitative data validity and reliability, the implications of my reflexivity and the data, and then looks at authenticity, biases and the ethical considerations which were addressed in my research practices. As I am known to the community as an administrator, and also as librarian researcher, the implications of these dual roles within my research practice is shared.

Finally, data analysis is described for the quantitative data (primarily demographic data), and the coding processes undertaken for the qualitative analysis. My use of coding and thematic developments based on Charmaz (2014) is discussed.

Findings

The *Findings* chapter explores and interprets the data gathered, and begins with a discussion of the importance of this data to reveal undocumented information about IL teaching practices in BC higher education. Demographic information follows which provides a context for the findings by revealing that almost all of the 25 public higher education institutions participated in this research. Information regarding the professional experience and tenure of individuals is presented, along with information about the size and type of institutions that they represented as participants in the surveys and interviews.

Key findings include data related to critical information literacy awareness amongst librarians; the application of critical information literacy (CIL) in their practices; and how librarians further their independent learning about pedagogical theory. The identification of barriers to applying new theoretical approaches is also a key finding. Other significant findings include the identification and closing of gaps related to IL teaching practice and theory; the evaluation of IL teaching and measures of success within institutions; and the impact of the ACRL *Framework for Information Literacy* on librarians' teaching.

Conclusions

This *Conclusions* chapter reviews the findings before providing recommendations that address the development of awareness and understanding of the theoretical underpinnings to library practices.

Recommendations focus on the benefit of librarians being better recognised for their contributions to higher education pedagogy, and the nature of their cross-disciplinary information literacy teaching. Opportunities that arise both within institutions, such as working with existing teaching and learning services to improve the understanding and application of library pedagogy, and across institutions, such as sharing developments in applying CIL in practices, are discussed. Opportunities for librarians to take leadership in social justice developments in BC higher education, in particular through indigenization (or de-colonisation) of our libraries, is one particularly timely recommendation offered in the chapter, due to the indigenization efforts underway in Canadian higher education.

2. British Columbia's Educational Context

Canada is a constitutional monarchy and is structured legislatively as a federation of provinces and territories. Legislative control is distributed by jurisdiction, meaning that some areas of responsibility fall to the federal government, some are within the control of the provincial legislatures, while others are shared. In Canada, responsibility for education rests with the provinces or territories, rather than the Federal government. In Canadian higher education both public and private institutions exist, with the majority of institutions being publicly funded. Education, overall, is generally well funded: "Canada spends more per tertiary student than almost all the OECD countries" (Government of Canada, 2017, p.1).

There is high educational attainment rate in Canada: in 2017, more than half (57.0%) of Canadians aged 25 to 64 had either college or university qualifications, up from 50% in 2010 (OECD, 2018). In 2016, Canada continued to rank first among the Organisation for Economic Co-operation and Development (OECD) countries in the proportion of college and university graduates (Statistics Canada, 2017).

Of note, however, is that educational attainment varies widely by ethnic origin or country of birth. While traditionally having lower attainment than the population at large, the indigenous populations of Canada have seen improvements in educational attainment in recent years:

In 2016, 10.9% of Aboriginal people overall aged 25 to 64 had a Bachelor's degree or higher, up from 7.7% in 2006. The proportion of Aboriginal people with a college diploma rose from 18.7% in 2006 to 23.0% in 2016 (Statistics Canada, 2017).

In British Columbia (BC), the higher education sector (the sector) is governed primarily by two acts: the *University Act*; and the *College and Institute Act*.

These acts legislate the activities of higher education in the province, and include the authority to operate a degree-granting institution and, more specifically, to develop programmes and award degrees. The sector supports a total provincial population of 4.7 million people across an area that spans two time zones and more than 940,000 square kilometres (BC Stats, 2016).

There are three categories of public institutions in the province of BC, involving 25 provincially-accredited institutions: Universities; Colleges; and Institutions. The majority of these institutions is able to grant undergraduate degrees. These three categories are further divided into four kinds of institutions:

1. Five research universities where academic staff is required to undertake research as an aspect of their core activities; and these universities award higher degrees;
2. Six applied universities, which have a focus on applied programmes and teaching, and which also award higher degrees;
3. 11 colleges, where staff has a teaching focus and which award undergraduate degrees and diplomas;
4. Three institutes which have a specific vocational or technical focus, and which may also award undergraduate and, more recently, higher level degrees.

In addition to the 25 public institutions, there is a large number of private post-secondary institutions in the province, with 10 degree-granting institutions that are recognised as part of the degree transfer programmes with the public institutions (BC Ministry of Advanced Education, 2018).

The provincial government mandates collaboration between the kindergarten through to high school (k-12) system and higher education, with the intention of providing a seamless student transition into publicly funded higher education. This transition is enabled through joint policy and planning between the Ministry of Education (school) and the Ministry of Advanced Education (higher education), and which mandates that the publicly-funded

institutions are required to accept the provincial high school credential, the *Dogwood Diploma* (BC Ministry of Education, 2018).

For public institutions, student full-time equivalent (FTE) numbers are identified for funding purposes, and are provided through the BC Ministry of Advanced Education as a 'per student seat' funding formula each year. This funding is provided annually as an operating grant, which is calculated by the student FTE and the targeted increase in student FTE (if any). This funding provides the base student funding for each student in the institution. Policy documents, such as the BC's *Skills for Jobs Blueprint* (Government of BC, 2014), drive the funding for different types of programmes that are supported and funded by the BC Ministry of Advanced Education. Non-government funded programmes within public institutions, such as international student programmes, are able to operate under the BC government requirements for domestic student programmes.

Each public institution has a legislated Board of Governors which is responsible for the strategy and fiscal health of the institution. Appointments to these boards are made by the provincial government and are intended to include community representation. They also include elected representatives from the employee groups at the institutions.

Tuition rates in British Columbia are relatively low compared to other provinces and territories. The average undergraduate tuition per year in the 2016/17 academic year was \$5,534, making the BC rates the fourth lowest fees out of the 10 provinces (Statistics Canada, 2017). Canadian full-time students in undergraduate programs paid, on average, \$6,373 in tuition fees for the 2016/2017 academic year, 2.8% higher than the 2015/2016 average of \$6,201 Canadian dollars (Statistics Canada, 2016, 2017). BC government policy limits tuition increases in public institutions to 2% each year, and no new fees on existing programmes can be required from students by their institutions. This maintains the relatively low rates for tuition over time, compared to other Canadian and US jurisdictions. At entry from first year,

students are eligible for scholarships, either through the BC provincial government or through bursaries and scholarships provided by the institutions themselves. Many students rely on student loans and consideration of the cost of tuition, which varies across institutions in the province, is one factor in student selection of an institution.

Students are eligible to enter higher education following graduation from BC high schools. Each programme and degree has specific requirements for entry, including minimum grades, and competition for some programmes, such as engineering, means that only students with the highest grades will be accepted. Students often begin their higher education experience in smaller institutions, with lower costs and a stronger focus on teaching and small class sizes, and then transfer to the research institutions to complete their degree or to enter into a higher-level degree programme. To support students transitioning between undergraduate or community college programmes to full degree institutions, transfer agreements exist between institutions.

The Education of Librarians in Canada

Librarians in Canada are educated in Master's degree level, and programmes are available at eight universities across Canada (Canadian Library Association, 2018). These programmes differ in length and focus, and offer both online and face-to-face courses. In general, the programme duration is two academic years, and it requires the student to attend in person on the campus, or through mixed-mode teaching approaches. The foci of the library programmes range from those of information management and information studies, to incorporating media and archival credentials (Canadian Library Association, 2018). All Canadian university programmes are accredited through the American Library Association's (ALA) *Standards for Accreditation of Master's Programs in Library and Information Studies* (ALA 2015b), as there is no Canadian accrediting body specifically for library programs. Gaining ALA accreditation ensures that graduates from Canadian

library programmes have a credential which is recognised by employers, and when hiring librarians, higher education employers generally require an ALA-accredited degree. While many Canadian librarians are educated within Canada, a number also choose to complete their degree at American or UK ALA-accredited institutions, which also offer programmes that are fully online.

Accreditation of library Master's programs ensures that librarians are qualified to work as a librarian across all library types, including public, special, and academic libraries. The ALA curriculum standards require that the program curricula must include: leadership development; the ongoing development of the scholarship of librarianship; technology theory and application; responsiveness to community needs; and instilling a disposition towards lifelong learning. Of note, ALA curriculum standard II.2.4 states that librarianship should be a service profession which "[r]esponds to the needs of a diverse and global society, including the needs of underserved groups" (ALA, 2015b). This curriculum expectation and the depth to which programmes are including the understanding of librarianship through a social justice lens, and the implications to practices by understanding theory and criticality, are addressed in later chapters.

Staffing in Higher Education

While each higher education institution is structured differently, in general, instructors and teachers are termed 'faculty' and are members of the institution's Faculty Association. Other employee groups operate under separate collective agreements based on unions that represent staff at individual or multiple institutions. Librarians may be incorporated within the faculty, staff, exempt, or administrative groupings of employees. Non-faculty employee roles are separately defined, with the term 'staff' being used for employees who do not have faculty status, and for those roles that provide the services and administrative support in the institution. The administrators are part of the 'exempt' group and have separate terms of employment.

Bargaining for the union groups is done both at the institution level and at the BC higher education sector level (PSEA, 2018).

The Academic Library in BC Higher Education

All higher education institutions in BC have academic libraries, as required by the institutional accrediting body, the BC Ministry of Advanced Education. Each academic library is led by a University Librarian, Library Dean or Library Director, who is the administrator responsible for the libraries and other academic service areas. Academic libraries range in their number of employees, based on the needs of the institution, from one or two librarians to tens of librarians and many more support staff (CPSLD, 2017).

Academic libraries exist to serve and support the academic purposes of their institutions. Libraries develop plans and goals based on the overarching strategic directions of their institutions. They also operate both within the policy frameworks of their institutions, including specific Library Policies governed either by the library administrator, such as Selkirk College Library Policy (Selkirk College Library, 2005) or by bodies outside of the Library, for example, administrative policies related to collections or the overall mandate of the Library (UBC, 2004). Information literacy teaching is one of the functions that academic libraries offer as service to students and faculty in support of their academic and research needs. Internal policies and guidelines exist within the academic libraries which may include details related to collection development, lending policies and teaching practices.

Regarding librarians within B.C. higher education, their employment status may range from that of faculty – meaning that the librarian has the same status and is covered by the same employment contract as teaching faculty or instructors – to having a separate professional status within the organization. Research institutions have the highest stratification of roles, including faculty researchers, instructional faculty, teaching assistants, and allied professionals, such as librarians, counsellors, lab technicians, staff,

etc. Smaller institutions tend to have much flatter hierarchies. All librarians are required to have a Master's degree in Library Information Studies or Information Science, and frequently have a second Master's degree in another discipline. Few academic librarians are required to do primary research as part of their faculty status, but many academic librarians, particularly in the larger institutions, undertake scholarship, conduct research and publish, or present their research at a wide range of conferences (Dunn and Xie, 2017).

Within academic libraries, librarians are responsible for the teaching and instruction of information literacy and library skills, as well as research and reference services. They also lead projects and service developments within the library and across departments in their institutions. Librarians in BC higher education institutions also act as liaisons for specific disciplines, faculties, schools or departments. Mechanisms exist for librarians to work with the teaching faculty on their research or resource needs, as well as their information literacy teaching needs. Other employees, usually working under a separate contract or employee category, provide the traditional library functions, such as the circulation and loans of materials, and they staff inquiry desks. In some library contexts, library technicians may also do orientations to library databases or other retrieval tools, within a classroom context, and provide support on the reference desk. Library staff also provide technological support, traditional technical services activities, such as cataloguing, and operationalise librarian-led initiatives. Most of the non-librarian staff positions in BC academic libraries require a two-year Library Technician diploma as a minimum credential.

The academic library's role has evolved over time. From the 1990s onward, with the development of electronic resources, off-site database access, electronic books, and budget cutbacks, concerns arose amongst librarians about the future of the traditional academic library. While initially it was perceived by some administrators and employees that academic libraries were becoming less relevant to their students and institutions, this has not

proven to be the case. Libraries have continued to strategically develop services and programmes that meet the changing expectations of students and the teaching and research needs of faculty (ACRL, 2017). Access and accessibility are two such areas of recent development, including accessibility for individuals with disabilities, and access to underrepresented communities, such as indigenous (aboriginal and First Nations) students. In addition, legislation and regulation mandate the existence of academic libraries, as a requirement of accreditation and due to their support for the higher education degrees and programmes. A focus on student outcomes at institutions within the United States and more recently in Canada has also led to expectations of academic literacies teaching. The increased awareness of the need to support students in their learning outwith the formal classroom setting has led to a renewed understanding of the importance of information literacy teaching in higher education (Hensley and David-Kahl, 2017).

Academic librarians may voluntarily join library associations but there is no mandatory librarian accrediting body or requirement for library association membership within Canada, generally, nor academic librarianship specifically. The Canadian Library Association (CLA), while previously a national association of individual and institutional members, was dissolved in 2015 so Canadian librarians look to provincial or international associations for professional development and advocacy activities. In BC, the British Columbia Library Association (BCLA) is an association of individual and organizational members. It conducts an annual conference for its members, and has professional development sections operated by volunteers. In the BC context, academic librarians may participate in the Canadian Association of Professional Academic Librarians, a membership-based advocacy group for librarians, or the BC Academic Libraries Section (BCALS), which supports professional development sessions within the BCLA annual conference and informal professional development activities throughout the year. A large number of academic librarians choose to participate as a member of the Association of College and Research Library (ACRL), a division of the

American Library Association, and are able to publish in its peer-reviewed journals or to present at the ACRL's biennial conference.

An association of the BC academic library administrators, the Council of Post Secondary Library Directors (CPSLD) of BC, is the common body for library leadership to share information and sector-wide developments. The members of this body work collaboratively, as an organization of peers, to share practices and to provide collective responses and recommendations to the Ministry of Advanced Education on matters related to higher education libraries. On an annual basis, CPSLD also collects and disseminates statistics related to academic libraries and their services within BC. The CPSLD comprises the 25 public higher education libraries and two private non-profit academic institution libraries in the province, for a total membership of 27 institutions.

Lack of Research in the BC Higher Education Realm

The nature of information literacy teaching in the Canadian higher education environment has been addressed in a limited way within library scholarship. There have been few contributions to the literature on critical information literacy teaching within Canadian higher education, although there are notable publications and contributions made by Canadian librarians in the literature on information literacy teaching in higher education, generally. The literature that does exist is discussed in the following literature review, and identifies clearly the gap which my research addresses.

3. Literature Review

This chapter identifies the research and scholarship of critical information literacy and the relationship between my research and the key literature in the field. The literature review examines the development of information literacy (IL) as a library practice, from the creation of the terminology used to identify the concept of 'information literacy', to the teaching practices that emerged over time and across geographic regions. I then look at the developments of critical responses to IL within library practices, with a focus on North America, including the development and evolution of standards and frameworks, and the responses to those developments within the scholarship of librarianship. These critiques are frequently grounded in conversations addressing social justice within higher education librarianship, and so are reviewed in their relationship to information literacy development. The application of theory and the development of the literature related to the concept of library pedagogy, and challenges that librarians encounter related to library pedagogy are discussed, as is the scholarship of critical information literacy (CIL) and its foundations within critical literacy. The range of research related to the teaching of information literacy in Canadian higher education will help to situate the research which was conducted for the current study. This literature review encompasses scholarly publications, and goes beyond the traditional peer-reviewed sources to include open source and grey literature (blogs and websites) on the scholarship of library pedagogy and information literacy teaching.

As is revealed in this chapter, the literature on critical information literacy is grounded in the scholarship of information literacy, and is also significantly informed by the literatures of critical pedagogy and critical literacy. As such, the library literature on CIL has been influenced heavily by the scholarship of Paulo Freire (1987, 2000), bell hooks (1994, 2017), Henry Giroux (1983, 2003, 2007 2011, 2017), and Ira Shor (1992, 1999, 2009), amongst others. This review, therefore, begins by exploring the development of information

literacy, and addresses the influences of theories of social justice, critical pedagogy and critical literacy upon the development a library pedagogy broadly, and the development of a 'critical' information literacy from those influences.

The Roots of Information Literacy

The literature of library information literacy and pedagogy has been in development for many years, and expanded during the latter years of the 20th century. As a set of practices within the library teaching context, information literacy has been directly influenced by the growth in publishing and the increase in access to information as a result of the Internet and the now-ubiquitous nature of the World Wide Web. In the 1990s, educators, including librarians, began responding to the impacts of the expanding online, digital, and traditional print publishing on the educational environment. This response recognised that technology and associated communication developments influenced both the creation and the consumption of information. Technological skills development, therefore, was an initial focus of information literacy teaching. Librarians identified an important role for themselves mediating access to digital forms of information that were being made readily available through computers, programmes or online systems (Eisenberg, Lowe, and Spitzer, 2004; Pinto, Cordon, and Diaz, 2010; Whitworth, 2014; Leaning, 2017). As information became more readily available, and publishing took on new digital forms that opened up opportunities for almost anyone to generate and 'publish' information, librarians realised the need to support students to take a more critical approach to their information identification and consumption (Accardi, Drabinski and Kumbier, 2010; Whitworth, 2014). The need for both skills development and more critical understanding of information sources and context was revealed.

A discussion about information literacy development in North American higher education would not be complete without some reference to

neoliberalism and the response of 'radical librarianship' (Vogel, 1991; Whitworth, 2014; Quinn and Bates, 2017). Neoliberalism, in the North American context, is a philosophy that promotes individual responsibility and the removal of government from the realm of social policy. It negates social justice and the inequities that persist in society in its drive to separate the role of government from its responsibility towards individuals within society:

Neoliberalism, then, changes the relation between the individual and society. It conceptualizes the individual as not only making choices, but as an autonomous entrepreneur responsible for his or her own self, progress, and position and responsible for his or her own success and failure (Hursh, 2017, p.1526).

In the educational context, neoliberalism drives educational organizations towards regimes of accountability and standardization as it "shifts the focus from inputs and processes, including funding and standards, to output and performance, to be achieved efficiently through standardized exams and other quantifiable measures" (Hursh, 2017, p.1526).

In recent years, the awareness and impacts of neoliberalism on public education in particular, and the recognition of the continuing need to create more equitable societies, through returning to the roots of social justice in education, have become more overt discourses in the scholarship of librarianship. Through the influence of the literatures of critical pedagogy and critical literacies, librarians have been debating the importance of taking a 'critical theory' approach to information literacy teaching, rather than continuing to support the more explicitly instrumental instructional approach, commonly in practice (Swanson, 2004; Nicholson, 2014; Downey 2016). Applied to information literacy teaching, radical librarianship attempts to expose the political nature of information literacy, and urges librarians to recognise and resist the impact of neoliberalism on higher education and librarians' practices within that environment. Within the tradition of radical librarianship, and informed by the literature on critical pedagogy and critical

literacies, a new term, 'critical librarianship', was developed with the intention of transforming librarianship beyond a profession that creates and teaches the tools to find and consume information, to one that encourages the critique of information and information consumption. Credited to the cataloguer Sanford Berman in 2007, the term "critical librarianship", "places librarianship within a critical theorist framework that is epistemological, self-reflective, and activist in nature" (Garcia and ACRL, 2015, p.1).

The discourse related to critical librarianship also has marked the beginning of a change to the perception of the profession, from one that considered the role of librarians to be that of neutral actors within our institutions—collecting and disseminating information for the benefit of our users—to one that situates librarians within power structures both within and outside of our institutions (Accardi, Drabinski and Kumbier, 2010; Gregory and Higgins, 2017). This adoption of a more critical form of librarianship, influenced by and reflecting the thinking and practices adopted by critical literacy educators, continues to be in transition and to some degree, contested. The tension between traditional and critical approaches continues to arise within librarianship, as is evident in the literature and the information communications amongst librarians. It is evident in the persistence of librarian values and codes of responsibilities, such as in the American Library Association's Library Bill of Rights (ALA, 2006b) that explicitly calls for libraries to maintain neutral and apolitical policies towards information and resources (Jensen, 2004; Joyce, 2008; Bales and Engle, 2012; Buschman, 2018), and in conversations that arise, particularly in library blogs and wikis, regarding the perceived nature of libraries as neutral and apolitical; and particularly with respect to public libraries, a perceived public good (Rozenweig, 1991; Jaeger, et al., 2013; Wilkinson, 2015; Seale, 2015; Carlton, 2018). Librarians continue to balance the expectation and needs of skills training to enable students to access and consume information, with the critical pedagogical and critical theory approaches for teaching students how to approach information, scholarship and knowledge development (Garcia and ACRL, 2015).

The application of a social justice approach to library practices, including IL teaching, is the overarching aim of critical librarianship. Critical pedagogy and its potential to transform traditional IL teaching practices is a current focus of information literacy development. Not all librarians agree with this approach, however, as many librarians resist this definition and expectation of their roles within their institutions. In particular, librarians have resisted some of the implications of critical pedagogy as it conflicts with the organizational value placed on their ability to identify specific measurable learning outcomes in support of their institution's general education programmes (Jensen, 2004; Lewis, 2008; Gregory and Higgins, 2017). Tensions in the discourse of librarianship persist, and librarianship continues to evolve as a profession within the higher education context, with a more critical focus on the development of theory and practices. It is also important to note the development of critical information literacy as a specific and narrow focus of information literacy within the higher educational environment, particularly within North America. This will be examined further in the literature review and a distinction between CIL and more general definitions of information literacy across broader contexts will be highlighted.

Information Literacy: Seeking a Shared Definition

The connection between the development of information literacy as a concept, and the identification of theories that underpin library practices, accelerated during the late 20th century, and continues to the present day. The role of librarians within higher education, in particular, has seen significant change during that same period, including a growth in pedagogical responsibilities within institutions:

Librarians in the academy increasingly see themselves as educators, an evolution in the profession that challenges established definitions of librarianship and of how we generate knowledge about professional values and practices (Elmborg, 2006, p.192).

Librarianship has traditionally been perceived as a profession that supports research and scholarship through identifying, acquiring and providing access to resources (Simmons, 2005; Elmborg, 2006; Jacobs, 2008). Mediating access through reference assistance, and in teaching students and faculty how to access resources, were some of the initial foundations of library pedagogy. Even though teaching was not the primary focus of librarianship in higher education initially, librarianship, similar to other professions, has been influenced by the economic, political, technological and social developments that have shaped higher education in western society since the 1990s. These factors continue to inform librarian practices within higher education, including reference and teaching services. In particular, these external influences are notably evident in the developments in the teaching and assessment of information literacy within the accountability regimes of higher education today, and which are critiqued as supporting the neoliberal impacts on higher education (Luke and Kaptizke, 1999; Accardi, Drabinski, and Kumbier, 2010; Seale, 2013, 2015). These critical ideals form in isolation from other views, including those that highlight the need to further the profession through the ability to measure learning outcomes and impacts of their higher education teaching (Rockman, 2002; Hulett et al., 2013; Luetkenhaus et al., 2017). This tension persists particularly due to the association between learning outcomes and proof of impacts (including student success and retention), and the perceived value of libraries (Oakleaf and Kaske, 2009; Brown and Malenfant, 2015; Quinn and Bates, 2017).

The development of the term 'information literacy' and its implications for the work of librarians does more than inform library practices. Its definition is inexorably linked to librarians' perceptions of their roles *vis a vis* the teaching faculty in the higher education context. Lack of agreement amongst librarians on the definitions and theories that underpin their practices has had a profound impact on the evolution of librarianship in higher education. For some, this means that there are limitations to librarians' ability to participate fully as a distinct profession within higher education:

Disagreements about what information literacy means are not merely a matter of semantics or technicalities: the lack of clarity has confused the development of a practice that might give shape to librarianship in the academy (Elmborg, 2006, p.192).

One aim of information literacy development has sought to have information literacy recognised as its own discipline. This position proposes that as a discipline, information literacy would allow greater collaboration and interdisciplinary work between librarians and scholars in other disciplines (Webber and Johnston, 2000, 2017). At the other end of the spectrum, the literature most frequently identifies the risk of librarians too often working in isolation from the aims of the teaching faculty, and supports the role of the discipline or teaching faculty in conducting information literacy teaching (Brasley and Watts, 2008; Saunders, 2012; Farrell and Badke, 2015; Badke, 2017). These themes regarding the uncertainty of information literacy and who should be responsible for teaching it in higher education continue to be developed in the scholarship of librarianship to this day, and particularly within institutions where librarians do not hold the same status as the teaching faculty. Librarians have disagreed to the extent that information literacy should be integrated into the curriculum (Julien and Pecoskie, 2009; McGinness, 2011; Harris, 2013b; Junisibai, Lowe and Tagge, 2016) and co-taught with the discipline faculty (Grafstein, 2002; Badke, 2017), or even whether librarians are the most appropriate teachers as they are information literate themselves and thus more able to teach information literacy (Biddiscombe, 2000; Kemp, 2006; McGinness, 2011).

The term 'information literacy' was open to criticism even as it was becoming accepted as a concept linked to the work of librarianship: "[i]t is unfortunate, then, that the term IL was chosen in the first place, since it suggests a lower-order skill that perhaps was not intended by the vast majority of librarians" (Purdue, 2003, p.655). Nonetheless, library associations and librarians

identified with this concept as a means of validating the work that they did within the academy (ALA 1989; SCONUL, 1999).

In contrast to the teaching faculty in most higher education institutions, librarians are usually responsible for teaching across all disciplines, and so do not have the traditional benefit of being able to subscribe to or develop one pedagogical tradition within a single discipline. Furthermore, while librarians strongly associate their purpose with developing information literate students, a review of the evolution of the term 'information literacy' underlines the fact that it was generated outside of librarianship itself. Paul Zurkowski, an information technologist in the U.S., is credited with creating the term 'information literacy' in 1974 in a speech in which he proposed: "the top priority of the National Commission on Libraries and Information Science should be directed toward establishing a major national program to achieve universal information literacy by 1984" (Zurkowski, 1974, p.27). This initial use of the term arose out of the recognition of the growing gap between users' abilities to use the tools that mediated access to digital information and the information itself, resulting in barriers to access and use (Bruce and Candy, 2000; Whitworth, 2014; Leaning 2017).

As technology, publishing, and information dissemination evolved in the 20th century, information literacy surfaced as a focus of attention of librarians and educators, and an acceptance of the concept of information literacy began to take hold. In particular, librarians identified their role in addressing the skills deficits related to evolving technology and how technology acted as a barrier to accessing information (Bruce and Candy, 2000; Webber and Johnston, 2000; Whitworth, 2014). The definition of information literacy within a library context evolved to mean the teaching of skills to enable people to identify, evaluate and use information to meet their needs. The first American Library Association (ALA) definition of information literacy was developed in 1989 as: "[T]he abilities to know when there is a need for information, to identify information for that need, and to be able to locate, evaluate and effectively use that information" (ALA, 1989, p.9). With these initial statements on the

importance of an 'information literacy' and the role of librarians to support citizens to develop their skills, a proliferation of statements related to librarianship and information literacy evolved across different contexts and regions. For example, the ALA promoted "The importance of information literacy to individuals, business, and citizenship" (ALA, 1989, p.1). To support librarians in their work, IL teaching models and standards were also created. Evidence for this diversity is available through the website of the Chartered Institute of Library Information Professionals (CILIP) Information Literacy Group, which currently lists sources for seven definitions of information literacy (CILIP; The Society of College, National and University Libraries (SCONUL); A New Curriculum for Information Literacy (ANCIL); Research Information Network (RIN); NHS for Scotland; JISC; UNESCO; and the Association of College and Research Libraries (ACRL)). CILIP also identifies ten teaching or competency models developed by librarian associations throughout the world, including the United Kingdom; Australia and New Zealand; Scotland; Wales; and the United States (CILIP Information Literacy Group, 2018).

Information Literacy Adoption and Application

Globally, the importance of information literacy has arisen as an essential ability for citizens to engage fully in modern information-rich, digital societies. With this recognition has come a perceived gap in citizens' ability to identify their information needs, identify how to access information, and to determine how to use that information to meet their needs. This concern about a perceived information and digital literacy gap is evident from the community level to the international level. This awareness of the importance of information literacy in modern society has led to the development of policies and statements addressing information literacy teaching, in a range of contexts (ACRL, 2000; UNESCO, 2005).

Recommendations for governmental policies to encourage the development of information literate citizens of the world originally focused on technology

and skills development. The focus began by addressing the digital divide (which enables inequalities within society by limiting access to participation in the digital society) through access to technology and telecommunications infrastructure, and the skills needed to facilitate citizens' access to information. During the 1990s and early 21st century, librarians around the world began generating statements in support of information literacy. The International Federation of Library Associations (IFLA), and the Australia and New Zealand Library Educators and Librarians, are examples of associations that developed statements and mandates related to the role of libraries to support citizens to become information literate. IFLA and UNESCO released several joint statements related to information literacy, including *The Prague Declaration: Towards an Information Literate Society* (IFLA and UNESCO, 2003): "The creation of an Information Society is key to social, cultural and economic development of nations and communities, institutions and individuals in the 21st century and beyond" (IFLA and UNESCO, 2003); and *Beacons of Information Society: The Alexandria Proclamation on Information Literacy and Lifelong Learning* (IFLA and UNESCO, 2005).

Lifelong learning enables individuals, communities and nations to attain their goals and to take advantage of emerging opportunities in the evolving global environment for shared benefit. It assists them and their institutions to meet technological, economic and social challenges, to redress disadvantage and to advance the well being of all (IFLA and UNESCO, 2005, p.1).

These statements drew attention to a growing concern related to the digital divide and supporting the need for informed citizenry (originally as aspect of Zurkowski's statements on IL) (IFLA and UNESCO 2003; IFLA and UNESCO, 2005). These joint proclamations encouraged an awareness of the need for information literate citizens and sought a concerted response by governments to this growing gap between information needs and information access. The IFLA Information Literacy Section was created to support international discussions on this topic, calling for "the development of

information literacy education in all types of libraries and information institutions” (IFLA, 2017), and it published a statement on *Media and Information Literacy Recommendations* to encourage governments to create policy to support the development of this competency amongst their citizens:

Under the umbrella of the developing information/knowledge society at all levels - local, regional, national, and international, we urge governments and intergovernmental organizations as well as private institutions and organisations to pursue policies and programs that advocate for and promote Media and Information Literacy and Lifelong Learning for all (IFLA, 2011, p.1).

Australian libraries have frequently been on the forefront of information literacy developments during the early 21st century (Johnston and Webber, 2003; ANZIL and CAUL, 2004; Whitworth, 2014), including the development of a national statement on information for all Australians.

[A]s a matter of priority, and at all levels, library and information services professionals embrace a responsibility to promote and facilitate the development of the information literacy of their clients. They will support government, and the corporate community, professional, educational and trade union sectors, and all Australians (Australian Library and Information Association, 2006).

In Canada, early information literacy efforts were developed primarily around school library activities (Whitehead and Quinlan, 2002), but a specific higher education information literacy teaching model has not been created. In 1999, in the UK, the *Seven Pillars of Information Literacy* model was first introduced by the Society of College, National and University Libraries (SCONUL) in its influential *Information Skills in Higher Education: A SCONUL Position Paper*. This SCONUL model distinguished between information skills and information technology skills, and has subsequently continued to be revised and updated, as recently as 2011. The seven pillars

of the original (1999) SCONUL model were: “Recognize information need; Distinguish ways of addressing gap; Construct strategies for locating; Locate and access; Compare and evaluate; Organise, apply and communicate; Synthesise and create” (SCONUL, 1999, p.8). Unlike in the United States with the adoption of the ACRL information literacy models, however, UK libraries do not all ascribe to a single model (Ellis, Johnson and Rowley, 2017).

Within North America, the 2000 publication of the Association of College and Research Libraries (ACRL) *Information Literacy Competency Standards for Higher Education* (the *Standards*) generated the first significant movement to recognise more formally and develop standardised library teaching practices across higher education. “The standards officially named librarians’ teaching output as “information literacy” rather than the “library skills” they taught in the past” (Margolin and Hayden, 2015, p.603). These competency-based standards became commonly adopted by most major post-secondary institutions in the United States and in Canada and continue to have an impact on how information literacy is taught and evaluated in academic libraries (Fister, 2015; Foasberg, 2015; Drabinski, 2017). These *Standards* were so influential that they were adopted and adapted in other national information literacy contexts, such as the *Australian and New Zealand Information Literacy Framework: Principles, Standards and Practices* published in 2001 and revised in 2004 (ANZIL and CAUL, 2004).

While the perception of the *Standards* was favourable to libraries in higher education, specifically because they enabled librarians to apply directly the individual standards to identify student learning outcomes and assessment, many librarians expressed their unease with the lack of criticality within the *Standards* (Swanson, 2004; Accardi, Drabinski and Kumbier, 2010). These concerns continued to be discussed and debated in online and traditional publications during the early part of the century, and developed into debates charging that librarianship is supporting the regimes of accountability within 21st century higher education institutions (Downey, 2016). Nevertheless, the

Standards persisted until the development of the new ACRL *Framework for Information Literacy*, and are still being applied by librarians in information literacy teaching practices throughout North American higher education.

In recent years, information literacy teaching has taken on a new sense of urgency throughout the world, as the proliferation of social media communications and the development of a ‘fake news’ culture have expanded. While the idea that the written word is necessarily factual persists in society, the more recent concept of fake news or digital deception as “the intentional control of information in a technologically mediated message to create a false belief in the receiver of the message” (Jandric, 2018, p.102, quoting Hancock, 2007) is being communicated in information literacy teaching. The ease with which information can be generated and shared within social media, and the Internet generally, has directed librarians’ engagement in more critical approaches to information literacy teaching (ACRL, 2015; Downey, 2016).

As recently as 2018, statements addressing the need for more critical approaches to information consumption, and the support for information literacy teaching, are being generated.

The International Federation of Library Associations and Institutions (IFLA) is deeply concerned about the phenomenon of ‘fake news’, and in particular the policy responses that aim to address it. This statement contains recommendations to governments and libraries, and will be accompanied by a toolkit of resources (IFLA, 2018, p.1).

CILIP, through their #Factsmatter campaign, have also made a strongly worded statement to address the trend of fake news:

We believe that fake news and misinformation and their impact on our democracy constitute a public health crisis, and that countering them effectively depends on a large-scale intervention to improve the ways

in which people engage with and share information online (CILIP, 2018a).

The concept of 'fake news' has served to re-energise the debates regarding the value and implications of information literacy teaching in higher education. Librarians in higher education are taking advantage of this opportunity to further the cause of information literacy teaching, including sharing ways to apply the *ACRL Framework for Information Literacy* in their practices (ACRL Information Literacy Weblog, 2018).

Other Theoretical Approaches to IL

It is important to recognise that there have been a number of other theoretical approaches taken in the research and development of information literacy and information literacy teaching practices, particularly outside the North American library and information studies (LIS) movement. These theoretical approaches include a number of learning theories that have informed understanding of information literacy, such as practice theory (Lloyd, 2010); metacognition (Budd and Lloyd, 2014), informed learning (Bruce, Hughes, Sommeville, 2012); and social theoretical approaches, such as phenomenology (Limberg, Sundin and Talja, 2012) and sociocultural perspectives (Limberg, Sundin and Talja, 2012; Budd and Lloyd, 2014). These alternative theoretical views into the development of information literacy teaching and learning, beyond the critical literacy and critical pedagogy of CIL, have broad application across all contexts of IL and have also influenced the development of the *ACRL Framework*, as will become clear later in this chapter. These different approaches are not extensively referenced in the critical information literacy literature, but do provide important and different perspectives on the development of information literacy teaching. These perspectives are informed by the social nature of information and librarians' understanding of information practices, pedagogical practices and learning processes. When applied to teaching practices, these approaches call for reflective practices that support the

development of critical information literacy in higher education “not the passive instruments of a standardised, organised approach to IL education, but *reflective practitioners* (Schon, 1991) in their own right” (Whitworth, 2014, p.46). Consistent across these approaches is the recognition of the contextual nature of information literacy teaching, whether related to citizens at large or the learning specific environment of academia.

Practice theory is one theory that has been applied to IL research. Lloyd (2010) looked to practice theory, as developed by Theodore Schatzki, to emphasise that information literacy practices exist within the context of other situated practices. Through practice theory, Lloyd focuses on the practice aspect of information literacy rather than on the concept of information behaviour. Consistent with the principles underlying critical information literacy perspectives: “information literacy is not constituted by a single way of knowing about information but is a product of the many ways of knowing, that interconnect to form the practice” (p.253). In addition, with respect to the idea that people can become competent in information literacy, Lloyd argued that “what accounts for information literacy skills and competency will be different according to the type of knowledge that is valued and legitimised within specific sites” (p.253). The socially-constructed nature of information practices, as argued by Lloyd, means that in an academic environment information literacy will focus on the individual’s experience of their specific information environments, and that there can be no single way of teaching information literacy within different disciplines in higher education. This approach aligns with CIL which also considers the learning context (discipline, institution) as well as the expertise that the student brings to the learning environment. These perspectives on information literacy practice as contextual and socially constructed are also reflected in the ACRL *Framework* and the critical information literacy practices in higher education, as will become clear in this literature review.

Similar to my position, Bruce, Edwards and Lupton (2006) state that “information literacy (IL) is not a theory of learning, but rather that people’s

approaches to IL and IL education are informed by the views of teaching learning and IL which they adopt either implicitly or explicitly in different contexts” (p.1). In common with the theoretical approaches addressed in the literature above, Bruce et al. emphasise a contextual approach to information literacy teaching. They propose a model involving six frames as perspectives for teachers and students to understand and to reflect on information literacy practices. This approach to information literacy pedagogy does not lead to a unified learning theory but a contextual approach to pedagogy, informed by individual librarians’ perspectives of information literacy teaching and student learning. This model offered a reflective approach intended to develop the teachers’ and the students’ perspectives on the nature of information literacy and information-seeking behaviours. Bruce, Hughes and Sommeville (2012) further emphasise a need for guidance in information literacy teaching that addresses the concept of informed learning. They call for the separation of the skills-based approaches to teaching IL in favour of practices that enable learning *from* information, through transformative learning processes: “The idea of informed learning was developed to direct attention toward those interpretations of information literacy that involve using information to learn” (p.524). From this perspective, informed learning becomes a support to the civic goal of lifelong learning and addresses the need to develop information literate citizenry as identified in the UNESCO, IFLA and other literacy statements.

Similarly, Limberg, Sundin and Talja (2012) emphasise the contextual nature of information literacy, and contend that whether recognised by librarians or not, there are a number of theories that underlie information literacy teaching. They explored information literacy through the lens of phenomenography, sociocultural perspective and discourse analysis: “all three theoretical approaches conceive of information literacy not as a stand-alone discipline or specialty, but as a field of research where theoretical understandings of information, learning and knowledge are fundamental” (p.95). Limberg, Sundin and Talja also argue that information literacy teaching practices should develop by looking beyond the skills approach of

traditional information literacy teaching to consider broader social contexts. Phenomenology, in their view, “emphasiz[es] the importance of understanding the learners’ perspective” (p.98) and that “[l]earning is viewed as an activity of constructing meaning, not as the transfer of knowledge from teacher to student” (p.99). The potential for phenomenological studies to explore and reveal the different experiences that students have in information literacy learning processes is valuable as it can lead to a greater understanding of the impact of evolving information literacy teaching practices. There is a clear link to critical pedagogy approaches in new teaching approaches that move away from the teacher as the source of ‘correct’ information literacy practices to one “directed at learners’ various ways of experiencing purposeful information seeking and use related to the situation or context where it is practiced” (p.103). The second theoretical approach they identified – sociocultural perspectives – proposes “that information seeking is carried out for a specific purpose in a specific practice, for instance for writing an academic paper” (p.107). Finally, discourse analysis, in their view, “aims at capturing the socially and culturally shaped ways of understanding information competences and information practices” (p.110). These three theoretical underpinnings of information literacy provide librarians with different perspectives to consider when developing and improving their IL teaching practices. Ultimately, these authors also recognise the connection between the aims and practice of information literacy teaching with those of literacy, and the context-specific nature of IL.

Budd and Lloyd (2014) identify the under-theorised nature of information literacy practices and proposed four theoretical frameworks to support information literacy pedagogical developments. These approaches were based on metacognition; practice-based; sociocultural; and ideological literacy (Budd and Lloyd, 2014). These theoretical positions were intended to frame information literacy as contextually and culturally specific, and to expand the conceptualising of information literacy beyond the narrow academic information literacy context. Their contribution to the literature was also intended to address the limitations of the ACRL *Standards*, which

attempted to define a standard for IL teaching and indicators of when a student becomes 'information literate'. Further to Budd and Lloyd, Hicks (2011) clarifies the difference gap between CIL and sociocultural approaches to information literacy scholarship:

Unlike with critical perspectives of information literacy, however, which have predominantly emerged from the classroom via the application of critical and feminist pedagogy, amongst others, sociocultural perspectives of information literacy have been almost uniquely driven by the (albeit empirical) considerations of scholars and there have only been a handful of studies that look at these ideas from the perspective of librarians (p.80).

This perspective identifies a gap in the research of information literacy practices that can be addressed through future research, with its potential to identify sociocultural practices related to information literacy.

The approaches noted above have influenced the continuing research into information literacy and IL teaching practices, and they have also had an impact on IL models, such as the UK's *Seven Pillars of Information Literacy* (Cope and Sanabria, 2014), and by extension to the development of the *ACRL Framework for Information Literacy*. These theoretical and research perspectives on information literacy education develop further our understanding of information literacy and the development of information literacy teaching beyond simple skills-based approaches to teaching tools for accessing information. These are research approaches and theories that are broader in perspective than those of critical information literacy – and more explicitly considering the implications of information literacy across society by developing informed citizenry and calling for context-specific approaches to information literacy teaching. How these differ from the development of critical information literacy approaches in North American higher education will also become clear in the following sections.

Critiques of Library Practices and Frameworks: Social Justice and Librarianship

Social justice is a concept with some fluidity of meaning, and has been a political, philosophical, religious and literary theme throughout human history (Bales, 2017). It also remains a term that suffers from “conceptual ambiguity” to this day (Lorenz, 2014, p.23). The *Concise Oxford Dictionary of Politics* defines the term to mean “the foundational character of justice in social life” (Reeve, 2009) while *A Dictionary of Education* defines social justice within an educational context as: “A term which refers to the good of the whole community, where that is taken to include both the good of each and the good of all, in an acknowledgement that one depends on the other” (Griffiths, 2009, social justice). In the sociological literature, it is more actively described as both as an acknowledgement of social injustices, and a recognition of the value of overturning oppressive cultural and legislative barriers that lead to inequalities (Merrett, 2010; Reisch, 2014). There are competing views of what ‘social justice’ means across communities and nations (Reisch, 2014). Social justice responses currently promote a stance calling for actively addressing society’s inherent social injustices; equalizing access to resources and opportunities; addressing the foundations of the injustices; and seeking to empower individuals to participate fully in society (Merrett, 2010).

In educational scholarship, the concept of social justice emerged in the mid-20th century and was related to the acknowledged social economic inequalities based on class, and later incorporating a focus on inequalities with respect to race and gender (Griffiths, 1998). The application of social justice to education may mean “unveiling the conditions of alienation and exploitation in society” (Torres, 2007, p.244). Paulo Freire’s work in developing critical literacy amongst oppressed classes in problematizing education to drive social developments; and his “emancipatory theory of literacy” (Freire and Macedo, 1987) have been powerful influences on the development of critical practices within librarianship (Jacobs, 2014). The

concept of an emancipatory literacy has been defined by Freire as “one of the major vehicles by which ‘oppressed’ people are able to participate in the sociohistorical transformation of their society” (Freire and Macedo, 1987, p.157). This interconnectivity of literacy and social justice were themes picked up from the late 20th and into the 21st century in the development of the literacies of information, media, digital and numeracy, amongst others.

Critiques of library practices during the 21st century have increasingly looked at the implications of social justice practices within librarianship, and have led to developments in policy and guidelines for professional practices. It is generally acknowledged that Librarianship in modern society incorporates a response to injustice as a professional value (Rioux, 2010; Bales, 2017) and this is linked to the core values espoused by the American Library Association (ALA, 2006a). Within Canada, the Canadian Library Association created statements related to diversity and social inclusion (CLA, 2008), and the BC Library Association’s Values Statement includes references to “Access and Inclusion” and “Diversity” (BCLA, 2018). Rather than policies that require adherence by librarians, these statements act only as ideal values rather than explicit requirements to be applied to library teaching practices.

The Impact of Critical Pedagogy on Library Pedagogical Developments

The work of Paulo Freire (1987, 2000), Henry Giroux (1983, 2003, 2007, 2011, 2017), bell hooks (1994, 2017), and others have had a profound impact on academic librarianship, with librarians taking up concepts related to critical pedagogy, critical literacy and the potential to address social justice through their practices (Phenix, 2005; McCook and Phenix, 2007; Bales, 2017). Similar to the earlier calls to educators to recognise that education, and institutions of education, do not have neutral stances towards the political, social and economic pressures of society (Darder, Torres and

Baltodano, 2017), librarians have also become more attuned to the forms of privilege that underpin library practices and seek ways to address the inherent inequalities in traditional information literacy teaching (Pagowsky and McElroy, 2016).

From its emergence from critical theory that developed out of the Frankfurt School (McLaren and Crawford, 2010; Porfilio and Ford, 2015), critical pedagogy has become a significant influence on the development of teaching within schools and higher education. Critical pedagogy is a response to the belief that education, curriculum and schooling reinforce society's oppressive structures and cultural norms. Its aims are emancipatory (McLaren and Crawford, 2010), and it "seeks to understand and is concerned with the ways that schools and the educational process sustain and reproduce systems and relations of oppression" (Porfilio and Ford, 2015, p. xvi), by recognizing the hidden curriculum (Boostrom, 2010). Following the work of Paulo Freire (1987, 2000) who worked with marginalised peoples in Brazil, the concept of critical pedagogy began to be debated and its implications understood within North American contexts, in particular through the works of Peter McLaren (2010, 2017), Henry Giroux (1983, 2003, 2007 2011, 2017); and Ira Shor (1992, 1999, 2009). Critical pedagogy itself has been critiqued through the lens of other socially excluded groups in western society, including the perspectives related to the inherent inequalities within educational systems and curriculum related to class, race, gender and sexuality (McLaren and Crawford, 2010; Darder, Torres and Baltodano, 2017). Feminist, LGBTQ and other pedagogies continue to develop, for example through the works of hooks (1994, 2017), and Freire and Macedo (1987), as do pedagogies related to decolonisation. The latter resonates with developments in Canada with the Truth and Reconciliation movement spurred on by the United Nations Declaration on the Rights of Indigenous Peoples (UN, 2007). Further to the influence of critical pedagogy in the development of library pedagogy, critical literacy has also played a significant role in the development of critical information literacy.

Development of an (Academic) Library Pedagogy

Teaching within a library context has long been understood as a key responsibility of librarians, but has only recently been associated with an explicitly identified pedagogy. 'Library pedagogy' refers to the practice of library teaching and instruction within academic libraries, and has emerged as a concept following the expansion of information literacy teaching from single (one-off) instructional sessions to more reflective pedagogical teaching practices (Drabinski, 2014; Nicholson, 2014). Furthermore, library pedagogy continues to evolve as underpinning not only classroom teaching but also the teaching that is inherent in library practices outwith the formal classroom setting. As recently as 2008, Jacobs argued that librarians' pedagogical work should be considered to:

[I]nclude not only the work we do in classrooms but also our work in reference situations, collection development, library and campus committees, professional organizations, campus and community groups as well as formal and informal conversations with students, colleagues, peers, administrators, and community members (Jacobs, 2008, p.257).

The function of library pedagogies informing a range of library activities is not well articulated by librarians across the higher education landscape, and so there remains an opportunity for furthering the discussion about librarians' information literacy teaching both inside and outside of the classroom.

In recent years, critical pedagogical and critical literacy approaches have been adopted independently by teaching librarians as they develop their library practices, and more formally through the research which informed the IL models, guidelines and frameworks. These critical perspectives are foundational to my research into critical information literacy teaching, and is explored here to situate the findings and discussions to come later.

Particularly influential in the development of critical library practices have been the works of Henry Giroux (1983, 2003, 2007 2011, 2017); Peter McLaren (2010; 2017); bell hooks (1994, 2017); and Ira Shor (1992, 1999, 2009). Paulo Freire is cited frequently in the library literature related to critical pedagogy and the development of library practices that move librarians away from “the banking concept” of teaching to more liberatory and hopeful practices (1987, 2000). The feminist pedagogy of bell hooks has also played a role in the development of library pedagogy (Ladenson, 2010). bell hooks’ writings (1994, 2017) related to feminism, race and class emphasise the explicit and unquestioned realities and the power imbalances that prevail in institutional settings, such as in higher education.

Within the North American higher education context in which my research is situated, Giroux’s (1983, 2017) exploration of the development of a ‘radical’ pedagogy, in referencing the Frankfurt School’s critiques of positivism, has been particularly influential. Giroux makes clear the specific mechanisms of ideological control that permeate the consciousness and practices of advanced capitalist societies (Giroux, 2017, p.35) and strives to reveal the role that hegemony plays in reinforcing inequities and systems of oppression, including educational systems. Librarians have been drawn to Giroux’ work because of the ways in which he has reflected on the nature of information and power within education:

Giroux's work is highly translatable and applicable to librarians because he constantly puts forward trenchant critiques that draw out and illuminate the ways in which the production, circulation, and consumption of information, knowledge, and meaning are never innocent but instead sutured to issues of power, political economy, and specific subject positions organized along class, racial, gender, and sexual orientation lines (Gage, 2004, p.3).

Ryan and Sloniowski (2013) have critiqued librarianship which they believe has internalised neoliberal expectations in the academy. They interpret that librarians have been complicit in many higher education environments as “representative of Giroux’s “neoliberal accommodation” (Ryan and Sloniowski, 2013, p.276). In their information literacy practices, “librarians have historically been reluctant to critically interrogate the concept of information literacy. Indeed, much of the practitioner scholarship on information literacy is reflective of, rather than resistant to, the core values of neoliberalism” (Ryan and Sloniowski, 2013, p.276). While these authors identified a deficit related to the critical examination of practices, this literature review, and the research reported in this study, indicate librarians’ have significant awareness of the need for more criticality in traditional library practices. These discrepancies may be due to the lack of published information on BC higher education librarianship, and a prevalence of recent local social justice initiatives related to de-colonising libraries. Regardless, Ryan and Sloniowski, and many others who are furthering the research and scholarship of librarianship, have initiated a call to action on the need to develop practices that follow a critical pedagogy approach (Elmborg, 2006; Accardi, Drabinski and Kumbier, 2010; Pagowsky and McElroy, 2016) and to resist the regimes of accountability within higher education institutions. As emphasised by Giroux (2017) and Freire (1987, 2000), taking a critical approach also means looking at the transformative potential of education and the language of emancipation, with clear applicability to library practices (Gage, 2004). “This language of possibility and hope is what sets critical pedagogy apart from post-structuralism and other critiques of institutionalised education: a utopian vision for education in a democracy is not an impossibility” (Mirtz, 2010, p.298). At the same time, and in contradiction to the literature on critical librarianship, many librarians continue to focus their practices on identifying the mechanisms that allow them to measure more effectively library instruction, and approach their teaching as a means to further students’ library skills development and library use (Portmann and Roush, 2004). While not entirely uncritical, these approaches take a pragmatic approach to teaching and skills development in higher education,

and the influence of these instrumental and objectives-based approaches continues to persist in the literature.

Librarians looking to more theoretical approaches to inform library practices has been a significant theme in the library literature in the 21st century. Elmborg (2006), Lilburn, (2007), Jacobs (2008), Jacobs and Berg (2011), and many other librarians argue for incorporating critical or radical practices to counteract the influence of neoliberalism in academic environments. Similar support for these ideals of more critical approaches to library pedagogy were reflected by the participants in the research I have recently conducted. Somewhat divergent from the literature, most of the librarians who I interviewed supported the belief that “[o]ur relevance lies not in training people how to use new tools, but as thinkers and citizens particularly engaged in questioning the shifting social complexities of the new information landscapes” (Ryan and Sloniowski, 2013, p.294). The instrumental approach to library pedagogy does still exist, however, both in the literature and within the findings of this research, and criticality is by no means the unanimously agreed upon approach to library practices.

Much of the literature critiquing library practice relates to librarians’ lack of knowledge regarding pedagogical and critical theories, but the empirical research in this area presents a more complex picture. In a study of self-selected librarians, Schroeder and Hollister (2014) found that most librarians did have an awareness of critical theories and those that did not still had awareness of the need for critical library practices. In their study, Schroeder and Hollister hypothesised that librarians had a range of levels of understanding of critical theory, with the expectation of gathering information from those both who felt they did understand critical theory, and those who were less familiar. In contrast to my methods, they distributed a survey questionnaire with open and closed questions to an unknown population of the members of five email listservs, including librarians and other library workers who provided any range of library services, including reference, teaching or technical services. The authors used convenience sampling, and

acknowledged that the results were not generalisable, given that they had only received a total of 365 responses from the five listservs.

While interesting, the convenience sampling used means that responses may have been skewed towards those interested in the topic of critical theory, regardless of their level of knowledge of the theory. The location and roles of the respondents also does not allow for a comparison with the methodology utilised in my research, as no information was provided regarding their respondents' library type or geographic region. In addition, in my research I am interested in determining the understanding of critical information literacy as it relates to library pedagogy, as opposed to all library services (such as technical services and acquisitions activities). Some of their reported results support the literature related to the interrelationships between librarianship, theoretical awareness, and social justice, such as in their conclusion that "the majority of librarians in this study who have no knowledge of critical theory regard service to historically underserved and underrepresented populations as an inherent part of their daily practices" (Schroeder and Hollister, 2014, p.113). Based on the results of their survey, the authors identified the value of incorporating more theory (specifically critical theory) into library education, a theme which I address as arising out of the findings of my research. While their study raises a number of questions and Schroeder and Hollister highlight the need for a more philosophical and theory-based foundation to librarianship. A more empirical methodological approach including purposeful sampling, would be beneficial as a follow-up to the research, and to validate their conclusions.

Similar to the mixed methods research design that I devised, Tewell (2018) recently conducted a mixed methods research study in which he sought to answer the following questions:

- (1) In what ways do academic librarians incorporate critical information literacy into their instruction?

(2) What benefits and challenges do academic librarians identify in making critical information literacy part of their instruction? (Tewell 2018, p.13).

Tewell gathered information related to the practical application of critical IL practices by distributing a survey questionnaire through library listservs, and following up with qualitative interviews. He identified a mixed methods approach as an exploratory one in which he further interrogated and triangulated information identified through the survey in the in-depth interviews. Similar to Schroeder and Hollister (2014), his study population was also a self-selected group of librarians who used critical information literacy in their classroom practices, and he also used convenience sampling. Interviews were both synchronous (Skype) and asynchronous (email). Similar to Schroeder and Hollister, the information about the total possible population of Tewell's (2018) study was not provided because the questionnaire was distributed through two academic library listservs and through Twitter. In contrast to my research, which employed a purposeful sample of survey participants, Tewell's respondents self-selected for the survey based on their interest in critical information literacy. His in-depth interviews, however, involved librarians who self-selected from the larger survey sample, in an approach similar to the one taken in my research. Due to the broader distribution beyond any regional, national or institutional focus, and lack of information regarding the potential total population from which he drew the convenience sample, the results and conclusions are interesting but are not directly comparable to the results of my research.

Nonetheless, Tewell found that librarians were eager to participate in the development of critical information literacy practices: "The excitement regarding this type of teaching was especially notable among librarians who were relatively new to the profession" (p.30). He reported that librarians identified a range of topics that they used as examples in teaching critical information literacy, including: "Classification; Search Examples; Academic Conventions and Access; Corporate Media; Alternative Media" (p.15).

Librarians were also using specific teaching methods in critical information literacy teaching: “Discussion and Dialogue; Group Work; Skipping the Database Demonstration; Reflection; Problem-Posing” (p.19) – many of the ways that reflect developments in critical pedagogy within higher education in North America. In addition to the barriers noted earlier in this chapter, librarians identified benefits that came with incorporating critical information literacy in their practice as: “Increased Engagement; Meaningful to Students; Meaningful for Librarians; Connecting with Faculty; Creating Community” (p.24). As Tewell and others have found, librarians seemed to be interested in participating in developing their information literacy teaching practices with a focus on new approaches, as supported by critical and reflective practices.

In summary, while the literature has consistently described a dearth of librarians’ understanding of pedagogical and critical theories, more recent focus in the literature on these topics and new research into this area are revealing something quite different. The perception of librarians’ interest in and engagement with critical information is becoming a consistent finding across different higher education environments (Accardi, Drabinski, Kumbier, 2010; Kos and Špiranec, 2015; Bury, 2017; Secker, 2017); through the studies by Schroeder and Hollister (2014) and Tewell (2018); and the developing literature and listservs related to critical information literacy. The relationship between the interest in learning about theories and evidence of critical practices is explored in the *Findings* and in the *Conclusions* chapters.

Critical Literacy and Its Influence on Information Literacy Development

The literature on critical literacy has influenced heavily the development of critical information literacy debates within librarianship. Building on John Dewey’s educational theories related to engendering the reflective student (Shor, 1999, 2009), and the critical pedagogy and critical literacy work of Freire (1987), critical literacy may be described as a process that moves

education beyond skills-based learning (the ability to read and write) to one that engages students at a level that creates an “awakening of their consciousness” (Shor, 2009, p.298). Literacy is more than the ability to read words – it supports freedom through enabling us to read the world (Freire, 1987) and it cannot be a neutral process but is one that is “a political battleground” (Bishop, 2014, p.51).

Shor (1999, 2009) described how critical literacy “challenges the status quo” to enable learners to create their own path or self-identity, as well as a process that would influence social developments. In particular, he conceptualised critical literacy as a means to address inequalities in society. It was clear to Shor that there were imbalances in education and the information that is shared within that context. He envisioned critical literacy having the potential to develop equality within society, through stimulating student awareness and inquiry: “Critical literacy involves questioning received knowledge and immediate experience with the goal of challenging inequality and developing an activist citizenry” (Shor, 1999, p.11). He also emphasised that critical literacy educators must be fully engaged in the processes that enable critical literacy within their practices, and are changed by these critical approaches, just as their students are changed.

Luke (2004, 2012) defines critical literacy in contrast to a more traditional concept of literacy:

[L]iteracy refers to the reading and writing of text. The term critical literacy refers to use of the technologies of print and other media of communication to analyze, critique, and transform the norms, rule systems, and practices governing the social fields of everyday life (Luke, 2012, p.5).

Similar to Shor (1999, 2009), Luke described critical literacy approaches as political in nature, which intend to address inequalities through establishing social justice aims. Comparable to the way that librarians describe and

approach critical information literacy, he stated that critical literacy aims to expose the biases that are inherent in all texts.

Vasquez (2017) also acknowledged that there are many ways that educational theories and practices create a range of outlooks regarding critical literacy practices, but that “the project remains understanding the relationship between texts, meaning-making and power to undertake transformative social action that contributes to the achievement of a more equitable social order” (Vasquez, 2017, p.3, quoting Janks and Vasquez, 2011). This description of critical literacy has clearly influenced the development of the definitions of critical information literacy (Downey, 2016; Tewell, 2018), particularly in the language related to power and meaning making. Critical information literacy definitions, however, rarely extend as strongly toward incorporating the expectations of societal change which have been identified in critical literacy approaches (Shor, 1999, 2009; Janks, 2017).

In her many writings on critical literacy, and based on her work in South Africa, Janks (2014) explained how critical literacy, when applied to literacy education, “focuses specifically on the role of language as a social practice and examines the role played by text and discourse in maintaining or transforming these orders” (Janks, 2014, p.349). Librarians have also begun to talk about information as being socially constructed, and that critical information literacy has the potential to transform student experiences of information and knowledge (Graves, McGowen and Sweet, 2010; Elmborg, 2016). Of particular note as it relates to my findings is the interpretation of the term ‘critical’ related to literacy and pedagogy (Luke 2004; Vasquez, 2017). “[T]he difference between “critical” from the Enlightenment period, which focused on critical thinking and reasoning, and “critical” from Marx as an analysis of power” (Vasquez, 2017, p.7) leads to different outcomes in practice. These differing interpretations of ‘critical’ were revealed within the results of my research, particularly arising from my probing for librarians’ definitions and examples of their critical information literacy practices. The

majority of librarians described supporting the learning of student critical reasoning, as their means of defining how they approached critical information literacy teaching. At the same time, there were other participant librarians who identified with Vasquez' latter definition in their striving toward critical information literacy teaching based on liberatory practices, and through recognizing power imbalances in academia, and in society at large (Elmborg, 2006; Downey, 2016). As is apparent in the literature and research, critical information literacy's fluidity of definition continues to support different interpretations just as critical literacy's definition has continued to evolve over time.

Critical literacy's development was also impacted by the work of the New London Group during the 1990s, from which the concept of multiliteracies arose (Vasquez, 2017; Garcia, Luke and Seglem, 2018). Multiliteracies was understood to mean the ability to engage with multimodal communications, including text, video and audio forms of communications, and which were accessible across the new technological platforms of the early Internet. The educators in the New London Group were seeking to address the impact of accessible global communication across many languages and cultures, and the proliferation of texts across many platforms, and beyond traditional static print publishing formats (New London Group, 1996). One particular aspect of this approach is to encourage students to engage with texts beyond the traditional deconstruction approach to literacy towards reconstruction, engaging students in their own contributions to the conversation, and in breaking down barriers between reader and text, regardless of format. With a focus on the implications for literacy pedagogy, the multiliteracies concept also influenced the development of information literacy. Information literacy guidelines follow similar consideration of both the impact of information in different forms, and the need for student engagement in the learning process. Janks (2010) articulated the connection between literacy and other developing 'literacies', including the impact of technology in the development of these new literacies:

As early as 1993, Green and Bigum began theorising the impact of new technologies on literacy and literacy practices. As a result, critical literacy practitioners began working with computer and information literacy and with media literacy, the latter interfacing with the fields of cultural studies, including popular culture, and media studies (Janks, 2010, p.15).

The interrelationship between literacies has led to more overt incorporation of aspects of different literacies such as digital literacy or media literacy, into information literacy definitions and guidelines. These literacies have also impacted the developments of the ACRL *Framework*, and the teaching practices of librarians during the 21st century.

In defining critical literacy, there are a number of different aspects that resonate with information literacy librarians, which have influenced the development of critical information literacy. As described by Vasquez (2017), key aspects of critical literacy include that 1) critical literacy is inherently a political activity, with the intention of revealing power imbalances to encourage social change; 2) critical literacy practices require the educator to internalise what it means to be critically literate; 3) critical literacy applies equally across the curriculum; 4) critical literacy needs to be contextualised to the specific learners; 5) critical literacy acknowledges and enables the recognition of the interrelationship of power texts and learners; and 6) learners need to be engaged in developing their own texts.

Each aspect of critical literacy arises in the discussions of critical information literacy, although not as explicitly. Both critical literacy and critical pedagogy inform critical information literacy and the literature reflects this. Bynoe and Katz (2018) acknowledged that critical literacy is essential to information literacy teaching. It “involves the development of critical thinking skills and becoming a critical consumer of information” (p.264). They identified the importance of students being able to recognise the meta-messages and the inherent power imbalances in scholarly publishing. As it will become clear in

the following sections and chapters, aspects of critical literacy have significantly impacted on the library discourse on critical information literacy. These impacts are directly observable within the new ACRL *Framework for Information Literacy*, where several of the aspects of critical literacy are incorporated, as well as in the findings of my research.

The explicit recognition that information is not neutral is another important perspective when adopting a critical lens to literacy. This concept of neutrality, or lack of neutrality, links directly to the discussions concerning the nature of librarianship that continue to the present day. Stemming from a persistent belief in the role of librarians as neutral actors within academia (Accardi, Drabinski and Kumbier, 2010; Downey, 2016; Gregory and Higgins, 2017), this is one of the most explicit critical discussions in librarianship.

Should librarians “serve” the academy by teaching its literacy skills unquestioningly, or should librarians participate in the critical reflection undertaken by “educators”, a reflection that leads us to challenge, if necessary, the politics of academic exclusion, and to participate in the creation of new and better academic models? (Elmborg, 2006, p.197).

This question continues to resonate with librarians even after more than a decade of development in critical information literacy teaching. This debate continues to be relevant and is apparent in the findings in my research. The discourse of librarianship has, over the preceding decades, begun to acknowledge that librarianship is not a neutral activity. While the concept of literacy, as one in which teaching people to read and write, has evolved through the development of critical literacy practices, information literacy has only recently incorporated more critical practices.

Toward a Critical Information Literacy

The term ‘critical information literacy’ emerged in the library literature at the end of the 1990s, when librarians began to consider the application of critical

educational theories to higher education library practices (Kapitzke, 2003; Tuominen, Savolainen and Talja, 2005). The connection to critical literacy's development is apparent both in the early discussions of a need to apply a critical lens to library practices, and in the development of the concept of critical information literacy. Luke and Kaptzke (1999) were two of the earliest authors to identify the value of applying a critical lens to information literacy: "a critical information literacy can encourage and enable learners to systematically reposition themselves in relation to dominant and non-dominant modes and sources of information" (p.486). This built on how critical literacy had been defined (Shor, 1999), as well as on earlier definitions of information literacy which included "the social, political, economic, and corporate systems that have power and influence over information production, dissemination, access, and consumption" (Gregory and Higgins, 2013, p.4). It also drew upon critical theory, which incorporates "a specific scholarly approach that explores the historical, cultural and ideological lines of authority that underlie social conditions" (Sensoy and DiAngelo, 2012, p. 3).

Critiquing library practices has come to mean considering the social justice implications of library practices, and applying a critical lens in the tradition of critical pedagogy and critical information literacy. As noted earlier, critiques of library practices have been influenced by the works of Giroux (2003, 2004, 2011, 2017), McLaren (2010, 2017), and Shor (1992,1999, 2009), in the tradition of examining power imbalances and recognizing library teaching practices that reinforce hegemony. As critical theory had not previously been associated with library practices, some librarians have begun furthering the scholarship of critical librarianship by seeking to apply critical theory as an underlying theory (Tewell, 2018). For most academic librarians, however, the specific traditions of critical literacy and critical pedagogy theories have had more impact on their understanding of how to apply critical approaches in their practices (Accardi, Drabinski and Kumbier, 2010; Downey, 2016). Webber and Johnston (2017) note the tradition of critical information literacy arising out of other disciplines, such as critical pedagogy and critical literacy.

They also explain how it has become particularly influential within library scholarship within North America:

The way in which CIL has evolved may be explained by looking at why it has evolved: as a response to forces in the North American higher education and library systems which constrain how librarians teach IL (Webber and Johnston, 2017, p.166).

Developments in U.S. higher education and the broad influence of the ACRL's models for information literacy teaching further clarify the development of critical information literacy specifically within the North American higher education environment.

In the early years of this century, the relatively prescriptive guidelines of the ACRL *Information Literacy Competency Standards for Higher Education* (2000) were considered both a tool to support library practices and a constraint to more explicitly theoretically-oriented library pedagogical practices (Jacobs, 2008; Purdue, 2003, Foasberg, 2015). Critics of the ACRL *Standards* approach suggested that they enabled an instrumental approach to information literacy teaching: "There is a danger that a strategy like that of the ACRL results in a 'tick the box' approach reducing a complex set of skills and knowledge to small discrete units" (Johnston and Webber, 2003, p.337). Purdue (2003), however, argued that the ACRL *Standards* provided guidance, but should not be literally applied as presented. The *Standards* should be considered "an abstraction, and are never meant to represent a lock-step process toward Information Literacy. They don't even claim to represent the totality of research practices" (Purdue, 2003, p.655). While considered extremely useful as a template for structuring their teaching, many librarians have long been concerned that the ACRL *Standards* and rubrics to teach and measure IL skills were exactly what Paulo Freire railed against – a form of the banking model of teaching (Purdue, 2003; Elmborg, 2006; Jacobs, 2008). The ACRL *Information Literacy Competency Standards for Higher Education* (2000) were literally developed to standardise practice,

and to support librarians to develop information literate students as “a framework for assessing the information literate individual”; and to “outline the process by which faculty, librarians and others pinpoint specific indicators that identify a student as information literate” (ACRL, 2012, p.1). While the intention of the *Standards* was to support librarians in developing their own information literacy practices within their institutions, in the opinion of some, it was the uncritical application of the *Standards* that was of most concern (Gullikson, 2006; Fister, 2006):

This was not the intention of those who drafted the Standards; they anticipated libraries adapting them to their own mission and campus culture. But some of us have become so entranced with adhering to the rules we have forgotten our purpose (Fister, 2006, p.104).

Due to the success of easily being applied to teaching practices in US institutions, the *Standards* thus became the accepted definition for IL, particularly in North America (Bell, 2013).

Within a few years of publication of the *Standards*, however, a deeper consideration of the changing nature of library instruction, information literacy teaching, and library practices generally, was deemed necessary following developments in technology, publishing, and communications (Ward, 2006; Elmborg, 2006; ACRL, 2012). Linked to this was the recognition that students and citizens needed to develop a broader range of ‘literacies’ of which librarians were also becoming aware. Those new literacies included concepts of media literacy, visual literacy, digital literacy and metaliteracy (Mackey and Jacobson, 2011). Subsequently, these literacies have continued to be identified within higher education, and now are often incorporated into student graduating outcomes at North American universities.

At the same time, another influential set of information literacy guidelines was in development in the UK, through the Society of College National and

University Libraries (SCONUL), culminating in the 2011 publication of the *Seven Pillars of Information Literacy*. This model for information literacy was originally developed as a SCONUL position paper in 1999, then updated following developments in technology, information distribution, educational practices and information literacy teaching over the following decade (SCONUL, 2011). While not explicitly incorporating aspects of the developing critical information literacy, the definition of information literacy within this model references the many literacies that have been identified as essential to students in higher education in the 21st century:

Information Literacy is an umbrella term which encompasses concepts such as digital, visual and media literacies, academic literacy, information handling, information skills, data curation and data management (SCONUL, 2011, p.3).

The Seven Pillars model is intended to be applied to all aspects of an individual's life, not specifically to a formal educational context. It does introduce different lenses which the educator may apply for use in a specific educational context, and outlines both "core skills and competencies (ability) and attitudes and behaviours (understanding)" (SCONUL, 2011, p.3) that can be indicative of a person's information literacy development. The seven pillars – Identify; Scope; Plan; Gather; Evaluate; Manage; Present – describe a circular process related to the development of information literacy abilities. These aspects include the ability of an individual to identify an information need and the scope of accessing sources to meet that need; the ability to develop search strategies; the process of actually locating and retrieving the information; evaluating the information that they access; and ethical aspects of presenting and storing information (SCONUL, 2011). Criticality appears directly under the Evaluate pillar, where an information-literate person is expected to be able to "[r]ead critically, identifying key points and arguments", and to "[c]ritically appraise and evaluate their own findings and those of others" (SCONUL, 2011, p. 9). Few other critical perspectives are evident, and there are no references to theories underpinning information

literacy or aspects of information literacy related to liberatory aims. The structure and the terminology used in the Seven Pillars, however, were later used to inform the redevelopment of the ACRL *Information Literacy Competency Standards Higher Education* (ACRL, 2012), which are explored in detail in a later section.

Developments in learning and educational theories have also impacted on the development of information literacy teaching and library practices. Scholarship of librarianship began to consider the nature of information and knowledge development, informed by and drawn from critical theory, critical pedagogy and critical literacy, which were not previously articulated within library practices. (Swanson, 2004; Elmborg, 2006; Jacobs, 2008; Drabinsky, 2017). Neoliberalism's impact on higher education, and the growing interest in applying social justice to librarianship in higher education, also drove the critiques of the *Standards* as being counter-productive to librarianship in the academy (Seale, 2013; Battista et al., 2015). Library scholars argued that information literacy teaching should move beyond a positivist skills-based approach: "the information sciences have yet to engage with critical literacies and with the larger epistemological questions raised by new technologies and postmodern reconstruction of discipline, knowledge and identity" (Luke and Kapitzke, 1999, p.486). Just as educators continue to identify ways to apply critical literacy in practice (Janks, 2014), so too do librarians seek to apply the principles of critical literacy within information literacy. Some of the earliest works that identify a clear connection between the scholarship and practice of critical literacy and the potential for a critical information literacy include works that draw upon critical literacy theory and practice in library practices (McNichol, 2016).

For librarianship, the broadening of the understanding that information literacy could incorporate more of a critical or social justice focus began to be openly debated, particularly through the work of IFLA and UNESCO, which drew attention to the need for information literate citizens in modern society. The IFLA and UNESCO joint Alexandria Proclamation (2005) recognised

information literacy and lifelong learning, and the social impacts of information literacy:

Information Literacy lies at the core of lifelong learning. It empowers people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. It is a basic human right in a digital world and promotes social inclusion of all nations (IFLA and UNESCO, 2005, p.1).

Positions on the purpose and importance of information literacy ranged from relatively practical perspectives related to teaching citizens how to access resources, to the identification of librarians as uniquely positioned to support the liberatory aims of citizens within information literacy practices.

Conversely, librarians also engaged in debates about the implications of these types of critical approaches related to the potential impact of politicizing the work of librarianship, particularly through critical literacy and critical pedagogy approaches, to the applicability of the Freire tradition to US higher education (Elmborg, 2012). Other librarians were still arguing for the role of the librarian as a neutral actor in the information literacy teaching context with which a more critical approach would be incompatible (Jensen, 2004; Lewis, 2008).

Proclamations, such as the IFLA and UNESCO joint Alexandria proclamation (2005) drew attention to the digital divide and the implications for citizenry in a digital society, and beyond the context of formal higher education teaching (Jacobs, 2008; Kutner and Armstrong, 2012).

The Alexandria Proclamation underscores information literacy's connections with broader social justice ideas and initiatives. Because of these connections, information literacy – like literacy – is not only educational but also inherently political, cultural, and social (Jacobs, 2008, p.258).

Library scholars began to feel more of a sense of urgency to examine library practices, by taking a more critical lens to information literacy teaching in academic libraries. Leckie and Buschman (2010) reported “the necessity for theoretically informed critique in library and information science” (p.vii), while other scholars began incorporating concepts of social justice into their critiques of library practices. Emborg (2006) described traditional information literacy practices “as teaching the “grammar of information [offering] reflections of a particular world view – Anglo, Western, Christian, and predominantly male” (Elmborg, 2006, p.197), and in need of critical reflection. More recently, Jacobs (2014) called for a new approach to information literacy teaching – a more critical approach that looks to critical pedagogy, critical literacy, and other learning and critical theories.

[D]iscussions of critical information literacy have allowed us to make connections with critical literacy efforts in broader educational endeavors and community contexts. Critical information literacy underscores that we all have an active role to play in this "reality in process, in transformation" and charges us with a mission beyond finding, accessing, evaluating, using, and understanding information (Jacobs, 2014, p.196).

Within the discussions on the need to apply a more critical lens to library pedagogy, Quarton (2014) identified the challenges to the teaching role of the academic library, both in the minds of administrators and the teaching faculty, and in the limitations placed upon librarian pedagogy within academic environments:

Instead of teaching students about the conceptual framework of information and how it influences what they know, the ideas they generate, and the world they live in, most of us teach students how to use specialised databases and the library space itself. Our disciplinary knowledge is hidden, and because of this, students learn only how to

find information for a specific need rather than how to *think about* information (Quarton, 2014, p.59).

Well into the second decade of the 21st century, librarians continued to critique the common practice of a skills-based or instrumental approach to information literacy teaching (Ryan and Slaniowski, 2013) and argued for the importance of applying more critical approaches to the practice (Downey, 2016; Tewell, 2018). The persistence of a skills-based tradition to teaching information literacy in higher education is now understood to be in conflict with more critical pedagogical values. This in turn has led some to question the fundamental practices of library pedagogy, because: "...the focus is on mechanistic, surface skills that do not provide students with a deep enough understanding of how information is produced, disseminated, and consumed" (Downey, 2016, p.17).

Librarians have begun to state overtly that information literacy, and more recently CIL, needs to be understood as pertaining to all aspects of library pedagogy in both formal and informal settings, including inside and outwith the classroom:

Critical information literacy is not limited to instruction; instead, it is a way of thinking about information literacy as a whole as it is expressed across various sites, from libraries' educational efforts to the professional and societal forces that shape these activities (Tewell, 2018, p.11).

Further critiques of CIL have been limited to date, and those that arise focus on the areas that have been highlighted in the discussion above. Critiques include the argument that CIL brings an advocacy and critical pedagogy approach to library IL teaching which may be in conflict with institutional mission or mandate (Elmborg, 2012; Portman, 2018); that CIL is a particular approach by U.S. higher education librarians based on the neoliberal context of many of their institutions (Webber and Johnston, 2017); and that it

surfaces tension related to libraries being considered neutral agents (Jensen, 2004; Lewis, 2008) particularly in a public library environment: “If public libraries are to embrace critical information literacy, they must first forfeit their identities as neutral information receptacles” (Hall, 2018, p.170). Other critiques more broadly identify that CIL is presented as unproblematically addressing the power structure in higher education through new approaches to IL teaching (Chandler, 2018). At the same time, helping librarians to consider the contextual nature of information literacy may be the foundational perspective to developing more critical approaches to IL teaching overall (Baer, 2016, p.5).

As a theory in development CIL looks to both critical pedagogy and critical literacy theories, and while there is some tension between the critical pedagogical approach and critical literacy approaches (Downey, 2016; McNicol, 2016), both involve a social justice orientation to developing information literacy practices in higher education. As a parallel to educators’ critiques of critical pedagogy, librarians may feel constrained in their critiques of CIL – being perceived “to reject—or even question—something defined as ‘emancipatory,’ egalitarian, and ‘liberating.’ To do so would be to risk looking foolish, naïve, or unfeeling” (Thomas-Bunn, 2014, p.5).

I return to these arguments that identify a need for librarians, the teaching faculty, and administrators to understand better the existence of a library pedagogy, based on critical pedagogy and critical literacy, in the *Findings* and *Conclusions* chapters.

Refinements to the definition of critical information literacy within the higher education context continue to emerge in the literature on librarianship. Tewell (2018) clarifies the use of the term in his recent survey of American academic librarians to mean that “critical information literacy is defined as an approach to education in library settings that strives to recognise education’s potential for social change and empower learners to identify and act upon oppressive power structures” (Tewell, 2018, p.11). This definition, as one of the most recently published, provides a foundation for the basis of

comparison between what was discovered in this research, in contrast to the published literature. Within the findings of my research, critical information literacy was most specifically associated with critical thinking and social justice; so, while encompassing ideas associated with the definitions in the literature, they are not fully aligned.

The ACRL Framework for Information Literacy for Higher Education

As some would argue, the *ACRL Framework for Information Literacy for Higher Education* (2015) has been in development almost since the publication in 2000 of the *ACRL Information Literacy Competency Standards* (ACRL, 2012). Over time, the need for a revision to these guidelines for academic librarians became more urgent, particularly as a result of the impact of economic, technological and pedagogical changes in American higher education (Elmborg, 2006). The original *Standards* were generated to support librarians to meet institutional expectations regarding learning outcomes and regional accreditation standards for higher education institutions (ACRL, 2015). To that extent, they were intentionally created as practical guides for librarians to measure information literacy learning outcomes, in environments where many librarians had no formalised teaching experience (Bauder and Rod, 2016). The *Standards* were taken up with great enthusiasm by many and continue to be used today. Conversely, they have also been criticised as being too prescriptive, too focussed on skills or tools-based instrumental learning (Ward, 2006; Elmborg, 2006), and rooted in power and political structures (Seale, 2013), rather than encouraging the understanding of information literacy education to be a transformative or cognitive-based learning process (ACRL, 2012; Holliday, 2017). This perceived gap between prescriptive standards and transformative learning process became more apparent over time.

In 2011, ACRL created the *Information Literacy Competency Standards Review Task Force* and charged it with reviewing the *Information Literacy*

Competency Standards for Higher Education with the purpose of either revising or rescinding them. The rationale for undertaking this review was to consider the impact of developments in information literacy, including what it meant to be information literate in a digital world. ACRL identified a “[g]reater need for sense-making and metacognition in a fragmented, complex information environment” (ACRL, 2014, p.22). In addition, ACRL recognised that the expectations of information literacy teaching in higher education, with respect to student competencies in information and technology, includes implications of accessing information in a range of print and digital formats. ACRL (2012) also acknowledged the influence of newer information literacy models that had been developed in other jurisdictions, including SCONUL’s *Seven Pillars of Information Literacy Core Model for Higher Education*, released in 2011, and other models in the UK (Martin, 2013).

At the time of its inception, the Task Force identified a number of ways in which the original standards should be revised. Key instructions to the Task Force and the research that was to be undertaken included the following: 1) that the *Standards* must be simplified; 2) that the *Standards* should use more accessible language, and 3) that the *Standards* must acknowledge complementary literacies (ACRL, 2015). Of note, the complementary literacies specifically identified were those of digital, media, visual, transliteracy (defined as the ability to analyse critically information that appears in any form) (Thomas, 2008), and metaliteracy (incorporating self-reflection as an aspect of information access and use) (Mackey and Jacobson, 2011). There was no reference to critical literacy as one of the literacies considered essential to inform the redevelopment of the *Standards* (ACRL, 2012); however, the influence of critical literacy and critical pedagogy on the language within the developing ACRL *Framework*, is apparent, and is examined later in this section.

While the redevelopment of the *Standards* was underway, ACRL encouraged higher education librarians and members of the Association to contribute to the process. Librarians contributed to the conversations by publishing their

feedback in online journals, blogs, listservs and through traditional journals. Some librarians explicitly anticipated the potential to include more critical approaches to information literacy teaching within the redeveloped *Standards* (Banks, 2013; Harris, 2013a). Recognizing the need to support an evolution in library practices in higher education, a position paper was developed to review information literacy and pedagogical theories. The 2013 ACRL White Paper, *Intersections of Scholarly Communication and Information Literacy*, identified the need to address changes to library practices stemming from developments in higher education and digital publishing. It proposed moving IL teaching from an instrumental or skills approach to one that teaches concepts. The Paper's recommendations noted that practices should:

- 1) integrate pedagogy and scholarly communication into educational programs for librarians to achieve the ideal of information fluency;
- 2) develop new model information literacy curricula, incorporating evolutions in pedagogy and scholarly communication issues;
- 3) explore options for organizational change;
- 4) promote advocacy (ACRL, 2013, p1).

By 2014, librarians were calling for a new theoretical framework for information literacy – one that recognises power imbalances within scholarship (Banks, 2013); and one that leads to information literacy “as a discipline, and no longer a weakened one-off phenomenon with limited power to transform the undergraduate student and make them information literate” (Creed-Dikeogu, 2014, p.42). The tension between those librarians who continued to see a need for explicit standards to support the work of higher education libraries within regimes of accountability (Dempsey et al., 2015; Bombaro, Harris, and Odess-Harnish, 2016), and those looking for a more critical approach to librarianship, surfaced during the work to update the ACRL *Standards* (Harris, 2013a; Seale, 2013, Tewell, 2016; Downey, 2016).

As noted earlier, the Framework was initially developed in order to update the older *Standards*, and specifically to incorporate new theoretical underpinnings to librarians' information literacy practices in higher education. As the committee proceeded with its task, they recognised the need to take a more radical approach than simply updating the *Standards*. Finally, they made the decision to move away from the *Standards* and to create an entirely new developmental structure:

It is time for a fresh look at information literacy, especially in light of changes in higher education, coupled with increasingly complex information ecosystems. To that end, an ACRL Task Force developed the *Framework* (ACRL 2015, p.3).

The development of the new *Framework* included seeking input from librarians as the Task Force progressed through its mandate. In March 2014, the Task Force reported on feedback to the draft *Framework* distributed in February 2014, including:

- 1) The agreement that threshold concepts appeared to be helpful toward developing information literacy beyond a skills-based approach and that they would enable cross-disciplinary discussions;
- 2) The emergence of a concern that the new theoretical concepts incorporated may lead to a barrier to adoption;
- 3) The recognition that the concept of "Dispositions" may also be difficult for librarians to use and evaluate in their practice (ACRL, 2014, p.1).

Librarians made a number of recommendations to the Task Force, including very specific suggestions regarding the use and application of the *Framework*, rather than concerns related to the inclusion or absence of critical aspects of information literacy teaching. Following feedback from a range of stakeholders, the Task Force submitted a revised document to the ACRL Board in June 2014 and outlined the additions and changes since the

initial draft of February 2014. At that point, the *Framework* formally identified threshold concepts in information literacy as “foundational concepts that, once grasped by the learner, create new perspectives and ways of understanding a discipline or challenging knowledge domain” (ACRL, 2014, p.18). ‘Metaliteracy’ was included and defined as including “the scope of traditional information literacy skills (determine, access, locate, understand, produce, and use information) to include the collaborative production and sharing of information in participatory digital environments (collaborate, produce, and share)” (ACRL, 2014, p.18). The document was formatted to include the additional explanatory language regarding the anticipated knowledge practices and dispositions related to each of the six frames, and to act as identified learning goals. The Task Force also clearly stated that the *Framework* was not intended to be prescriptive, even though there were explicitly listed dispositions and knowledge practices.

Early critiques of the draft *Framework* noted some of the apparent contradictions between the terms of reference for the Task Force and the initial drafts of the *Framework*. Two of these obvious contradictions were related to simplifying the structure, and limiting the use of jargon: “one has to ask how is that simplification even possible when librarians are faced with a very specific and complex theory set... that they have to unravel and apply in the classroom?” (Creed-Dikeogu, 2014, p.45). The discourse surrounding the evolving *Framework* also anticipated and recommended that the *Standards* should continue to support this new, more theoretical framework, enabling librarians to support the existing institutional learning outcomes and assessments of information literacy used in U.S. higher education (Dempsey et al., 2015; Bombaro, Harris, and Odess-Harnish, 2016). Further updating of the ACRL *Standards* finally culminated in the 2015 publication of a new document to replace the original Standards: *The Framework for Information Literacy for Higher Education*. In 2016, the *Framework* was formally adopted by the ACRL and replaced the *Standards*.

From the first introduction of the draft ACRL *Framework* in 2014, critiques centred around the appropriateness of the underlying theories that informed the development of the new *Framework*, including threshold concepts and metaliteracy, as well as confusion over how to apply these recommended practices (Creed-Dikeogu, 2014; Beilin, 2015). Librarians who had previously been able to apply the *Standards* to develop clear learning outcomes that were measurable competencies under the *Standards* now had to consider how this new framework could be integrated into their teaching. With many librarians having access to students only through the ‘one-off,’ or single session classes to teach how to access library resources, trying to engage students with more meaningful pedagogical practices was a significant concern. Discussions centred around what it would mean to apply the new *Framework* for Information Literacy, including the need to create examples for each Frame and its identified knowledge and dispositions as indicators of students having ‘crossed the threshold’ of understanding (Jacobson and Gibson, 2015; Bauder and Rod, 2016). At the same time, many librarians embraced the incorporation of new understandings of knowledge creation through the *Framework*:

The Framework’s embrace of a social constructivist philosophy—which holds that knowledge is constructed and reconstructed through social interactions—makes it less reductive and more inclusive than the Standards’ positivist approach, which assumes that information is objective and measurable (Foasberg, 2015, p.702).

As reported in the literature, much of the conflicting response to the introduction of the *Framework* was linked to librarians’ concern over how to apply the *Framework*, and not understanding how this could be achieved.

In its final published form, the six frames for the [*ACRL Framework*](#) are:

- 1) Authority is Constructed and Contextual;
- 2) Information Creation as a Process;
- 3) Information Has Value;
- 4) Research as Inquiry;
- 5) Scholarship as Conversation;
- 6) Searching as Strategic Exploration (ACRL, 2015, p.1).

Within the *Framework* documentation each frame is defined, and both knowledge practices and dispositions related to the frame are stated to help librarians identify when an information user has achieved understanding of the particular frame. The *Framework* is not intended for distribution to students, but is designed to act as a structure on which librarians will scaffold learning objectives and outcomes to help students to reach and demonstrate the identified knowledge practices and dispositions. The nature of the *Framework*, built upon threshold concepts, is described as “a cluster of interconnected core concepts, with flexible options for implementation, rather than on a set of standards or learning outcomes, or any prescriptive enumeration of skills” (ACRL, 2015, p.2).

Debates continued as librarians voiced a range of objections regarding the replacement of the *Standards* with the *Framework*. These concerns included: losing the institutional drivers that supported their information literacy teaching with specific outcomes, identified within the *Standards*; the use of language imported from other disciplines into library practices; and whether the foundational threshold concepts could actually apply to information literacy teaching through the *Framework*.

This concern about language is partly tied to the anxieties about strained relationships with stakeholders, but it also reflects a certain resistance among academic librarians to theory imported from other disciplines into library practice or even into LIS scholarship (Beilin, 2015).

As noted earlier, while ACRL clearly stated that the *Framework* is not intended to be prescriptive, it still incorporates fairly specific lists of observable knowledge practices and dispositions that could enable a prescriptive approach to information literacy teaching (Seale, 2015).

While the ACRL *Framework* has a number of proponents, the persistent nature of the ACRL *Standards* means that many higher education librarians, particularly in the United States, continue to use them. This is due to the regulatory and accreditation structure of the American higher education system, and librarians' abilities to identify learning outcomes related to information literacy using the former ACRL *Standards*: "[m]ore common in academic libraries are planned information literacy programs, usually through one-credit classes or participation in first year experience programs that are tailored to institutional learning outcomes and the ACRL standards" (Bakermans and Plotke, 2018, p.99). While acknowledging the development of a new pedagogical focus to library teaching, it is clear that tensions will continue to persist in higher education librarianship between critical librarianship perspectives and the pragmatic responses of many libraries towards meeting institutional accreditation expectations by creating ostensibly objective information literacy student outcomes.

In recognition of these ongoing tensions, the structure of the *Framework* is intended to support the development of librarians in understanding its underlying theories and concepts. The *Framework* incorporates discussion about the process of its development, the outline of the individual six frames, and details about the frames, and it goes further to attempt to incorporate some of the functions of the *Standards* to support explicit learning outcomes.

Critical Information Literacy and ACRL Standards and Frameworks

As noted above, critical information literacy theory has been in development throughout the 21st century, but definitions of the term and the concept are still in flux (Luke and Kaptzke, 1999; Swanson, 2004; Elmborg, 2006; Downey, 2016). As the primary association for higher education libraries in North America, the Association for College and Research Libraries (ACRL) has been the focal point for the practical application of the developing library pedagogical theories. At the same time, however, the ACRL has functioned as a body that supports libraries' abilities to generate the measurable learning outcomes for their institutions.

Librarians have expressed concern over how to apply criticality to library teaching practice. The traditional authority-led instructional practices of many academic librarians are fundamentally at odds with a critical perspective on information literacy (Swanson, 2004; Elmborg, 2006; Jacobs, 2008), based on the concept of shared authority in the critical pedagogy tradition. These debates have led to "librarians' recognition of the need to expand library instruction from a strict focus on retrieval tools and techniques, to critical analysis of the match between information documents and the searchers' proximal goals" (Pankl and Coleman, 2010, p.7). The scholarship of librarianship recommends that librarians adopt theories of critical pedagogy and critical literacy within their practice which has led to the development of *critical* information literacy (Accardi, Drabinski and Kumbier, 2010; Swanson and Jagman, 2015).

While not specifically based on critical pedagogy or critical literacy, the ACRL *Framework* is based on a number of learning and pedagogical theories, including threshold concepts and metaliteracy, and it attempts to move librarian practices to more theoretical approaches and away from the traditional prescriptive approaches to teaching information literacy (ACRL, 2015). With the filing of the *Framework* with the ACRL Board, discussions

concerning the implications of critical information literacy have occurred in the discourse of librarianship. The *Framework's* adoption has been significant, although some librarians have expressed reservations related to the changing nature of library information literacy teaching, and a lack of familiarity with the underpinning theories (Accardi, Drabinski and Kumbier, 2010; Swanson and Jagman, 2015; Downey, 2016). Using a critical information literacy lens, the *Framework* does offer opportunities to increase the potential of adopting critical practices within higher education:

[T]he Framework does not contradict or undermine the possibility of a critical information literacy instruction or critical pedagogy, but may very well encourage it, which is a vital point that librarians should remember (Beilin, 2015).

Although librarians do see a clear link between critical information literacy and the *Framework*, there have been specific criticisms of the *Framework* which suggest that it has not gone far enough to support true critical information literacy in higher education information literacy teaching. Seeber (2015) acknowledges some aspects of critical information literacy: "The text draws from the critical information literacy movement, which resists linear models of instruction" (p.159), but recognises that it is not specifically addressing critical information literacy. Seale (2015) acknowledges that the *Framework* has tried to incorporate a critical information literacy perspective, but she expresses concerns that the *Framework* does not support critical information literacy explicitly, and is internally conflicted with its description of power related to information and IL teaching. She further raises the concern that the *Framework* actually supports a neoliberal approach to IL teaching:

The liberalism underlying the Framework does not challenge neoliberalism but rather makes it easier for neoliberalism to take hold...the Framework focuses on the universality of information literacy and its accompanying knowledge practices and dispositions

for students and on the Framework as a universal guiding document for libraries and librarians (Seale, 2015, p.8).

Seale perceives the nature of the frames and the identified dispositions and knowledge practices as supporting the current hegemony which promotes individualism and neoliberalism within higher education. While that interpretation has some merit, librarians are not explicitly required to use the *ACRL Framework*, and they may also choose to select which components to inform in their practices.

While the *Framework* draws on critical perspectives in a number of frames, and references aspects of critical literacy and critical pedagogy, it falls short of explicitly addressing or advocating a fully critical information literacy perspective. For example, the first frame, *Authority is Contextual and Constructed*, comes closest to some of the underlying approaches to critical information literacy. “Experts view authority with an attitude of informed scepticism and an openness to new perspectives, additional voices, and changes in schools of thought” (ACRL, 2015, p.4). It introduces the idea that some sources may be “privileging certain sources of information” and that students need to “critically examine all evidence” (p.4). One of the dispositions under this frame acknowledges critical information literacy perspectives through stating that students should “respect the expertise that authority represents while remaining sceptical of the systems that have elevated that authority and the information created by it” (p.4), and to be open to different sources of authority, depending on the context of the information need. Notably, the language used is tentative in its references to the liberatory and power challenging/regime challenging or politically-charged perspectives of critical literacy and critical information literacy. While it does reference critical information literacy, it demonstrates a hedged reference to these approaches.

Other frames encourage the application of a critical approach to information seeking actions, but do not articulate clear critical information literacy

perspectives. The second frame, *Information Creation as a Process*, encourages a critical approach to information and addresses the potential of information having a different value to the researcher based on their context (such as workplace rather than academia). This supports aspects of critical literacy which also seeks to contextualise texts based on the reader or their learning environment. It also encourages students to “critically evaluate the usefulness of the information” but otherwise focuses more on the recognition that “information products” may be developed in a range of ways and be valuable or not based on a user’s needs (ACRL, 2015, p.5).

The third frame is *Information Has Value*, and it does incorporate significant aspects of criticality in its discussion about privileged information sources. Specifically, the frame acknowledges that some information, depending on the community, may have power in that it may be valued more highly than other information. This frame also explicitly notes that the way value is applied to information may “marginalize certain voices” (ACRL, 2015, p.6). Furthermore, mastering this frame leads to an understanding of how the power inherent in certain information may be used to address power imbalances in society.

The Fourth frame, *Research as Inquiry*, proposes that students need to learn the nature of their field of research before they are able truly to contribute. It highlights the need for students to learn how to engage in the discourse of their discipline by asking effective and researchable questions, and to use appropriate research methods. This frame, however, makes the fewest connections to the underlying premise of critical information literacy.

Scholarship as Conversation is the fifth frame, and it encourages the development of students’ understanding that scholarship involves discourse and different views, and that students should contribute to that conversation. It recognises that there may be no right answer to a particular question, and the importance of identifying a diversity of inputs when gathering information. While this frame does recognise explicit power imbalances, such as that

some voices or publications may be privileged over others, it does not attempt to address hegemony directly nor offer a perspective on the power aspects of information and scholarly communications.

Finally, Frame 6, *Searching as Strategic Exploration*, addresses the challenge of the search process to identify needed information, and it describes how expert searchers utilise a range of search strategies and sources over the more limited approach of the inexperienced researcher. While it recognises that searching ability is impacted by a number of factors, including learners' abilities and the learning context, it does not attempt to provide a critical approach beyond addressing these more practical aspects of information search and retrieval.

Beyond this critique of the *Framework*, others more explicitly criticise it as a replacement set of *Standards*, rather than a guideline for supporting librarians to develop new critical practices for their own educational institutions: "The *Framework* transforms intellectual work meant to promote reflection about the philosophy and practice of teaching into a codified set of foundational truths intended to organise local information literacy learning outcomes" (Drabinsky and Sitar, 2016, p.57). In their argument that standards equate with power, Drabinsky and Sitar (2016) further state that the *Framework* and its introduction to the U.S. higher education community amounts to creating the structures and supports to codify a set of standards into librarians' practices. Just as in critical literacy practices which require educators to be changed themselves through their critical teaching practices (Shor, 1999; Vasquez, 2017), proponents of critical information literacy seek a similar perspective on critical information literacy teaching through the *Framework*, rather than the apparent codification of power structures.

The ACRL *Framework* is founded on principles drawn from a wide array of current thought in information literacy teaching. It attempts to be a tool to bring about a critical perspective to IL teaching, even while it seeks to continue some of the traditions of the former *Standards*. The nature of the

explicit knowledge practices and dispositions associated with each of the Frames brings some of its contradictory positioning to the forefront. Given that the ACRL *Framework for Information Literacy* does not purport to be a document that furthers critical information literacy approaches, it is perhaps not surprising to note the limited aspects of criticality within the frames.

Literature on the Education of Librarians Related to Information Literacy

The conversations related to information literacy teaching, and the developing role of pedagogy as an important aspect of higher education librarianship, continue to evolve. The American Library Association is the accrediting body for North American Masters programmes for librarianship, and has developed specific documentation related to the requirements for Masters' programme curricula. The ALA *Accreditation Standards* require the study of theory and the public purpose of librarianship (ALA, 2015b). Nowhere do the standards specify the type of curriculum, nor whether librarians should learn about pedagogy, or explicitly how to teach, other than within the overarching principles noted above.

The library literature has raised concerns about the perceived limitation in the education of librarians. Foster (2006) refers to the education of librarians as trying to balance “a good mix of vocational skills and intellectual development” (p.488) and argues that “the complexity of theory and a related need for the application of theory to practice are most visible in the development of information literacy” (p.489). In the UK, a recent study reported that only a small minority of library and information studies (LIS) schools provided an information literacy course (Inskip, 2015). Another recent phenomenological study in the UK aimed to determine whether librarians see themselves as teachers or trainers, and to what degree they apply teaching theories to their practices. In a study involving six higher education teaching librarians in northern England, Wheeler and McKinney (2015) found that not all librarians would identify themselves as teachers and

“feel less confident about their teaching” (p.123). Although this is a non-representative sample of higher education librarians, the findings that emerged were consistent with those in the literature on librarians’ teaching in North American higher education, and led the authors to recommend improved continuing education for librarians and improved library school pedagogical development.

In the U.S., LIS education has been criticised frequently for a lack of education related to theory, including that of pedagogical theory, leading to higher education librarians being uncertain about their ability to teach (Westbrock and Fabian, 2010). It has also been noted that librarians have reported that they learned how to teach only when they were employed as librarians, rather than through their LIS programmes (Saunders, 2015).

In her recent research with academic librarians, Downey (2016) described librarians’ experiences of learning about pedagogy and information literacy teaching within their programmes, and noted that curricula which included critical pedagogy and critical theory, as well as information literacy teaching, were notably minimal. Further consideration of the implications of theory in librarian education is included in the *Findings* and *Conclusions* chapters.

Challenges to Library Pedagogy

There is significant research on challenges or barriers that librarians encounter in their teaching of information literacy in higher education. Within research conducted related to information literacy, challenges that librarians encounter have been frequently reported, and a number of consistent themes have arisen as to the nature of these challenges. These barriers and challenges can broadly be represented as the lack of resources (librarians, staff and funding) and relationships with the teaching faculty, leading to lack of access to students.

In their longitudinal studies of Canadian academic librarians, Julien, Tan and Merillat (2013) identified a consistent response to the question of challenges to teaching information literacy, which correlated with earlier studies and with my research study: “As was the case in the 2005 survey findings, the majority of institution-related challenges related to faculty. Lack of faculty communication, limited faculty interest, and resistance to ILI [information literacy instruction] were the dominant issues” (Julien, Tan and Merillat, 2013, p.96).

Literature on BC/Canada Higher Education Teaching Practices

Although there is a rich history of librarianship within Canada, and strong support for libraries in most higher education institutions in BC, there is a dearth of publications on the nature of information literacy practices within higher education in Canada or individual provinces (Julien, Tan and Merillat, 2013; Bradley, 2013; Badke, 2017). This is due to a combination of reasons, including the provincial nature of Canadian higher education accreditation, and the lack of a national library association. Within Canada, accreditation occurs at the institutional level (institutions are accredited through provincial legislation and regulations) and then individual degrees are approved within that accredited institutional framework by the Ministry of Higher Education. While thorough, these accreditation processes differ from province to province and continually evolve based on governmental priorities and administrative changes. Accreditation in the US, in contrast, involves a more formalised process that requires institutions to meet very specific and highly-detailed standards that include learning outcomes and curricula, and which impact directly on the role of librarians. This means that in Canada, librarians are not identifying and sharing practices based on the same urgency to meet institutional standards as they are in the US. In addition, because of the lack of a national library association, institutions and individual librarians in Canada may determine their own membership needs and choose to

contribute to the scholarship or research into library theories and practices based on their own research interests.

Some research into information literacy teaching within Canada has been conducted during the 21st century. A white paper prepared by Whitehead and Quinlan (2002) reviewed the policy and educational environments and contributed to the understanding of information literacy needs of the Canadian workforce and information literacy teaching in schools and higher education. At that time, the relatively recent expansion of Internet access and the subsequent recognition of a need for technology skills were the particular focus of attention for information literacy development. With respect to higher education, Whitehead and Quinlan (2002) reported that higher education librarians taught information literacy using a wide range of approaches. At that time, they found that “it seems in many ways that information literacy programs are still in their infancy, and in most institutions, it seems they are not sustainable as currently funded and delivered” (p.10). Consistent to what is still being debated today, information literacy teaching focussed on:

[U]nderstanding how to locate efficiently and effectively information from many sources, and understanding how information is generated, organized, stored and transmitted. Other elements, such as understanding how to critically analyze and evaluate information, are seen as a responsibility shared with teaching faculty (Whitehead and Quinlan, 2002, p.10).

Whitehead and Quinlan also provided eight recommendations from their review of information literacy needs and teaching in Canada. These ranged from recommending further research into information literacy abilities of Canadians; incorporating information literacy into government strategy; to the creation of educational policies related to information literacy curriculum development and teaching practices. While a decade and a half has passed since their white paper, the state of the need for information literacy strategy and policy across the country has seen little change; and information literacy

teaching in higher education, as evident in my findings, has also not developed significantly.

Further exploration of information literacy teaching in Canada, and of particular relevance to my research, is a series of studies of IL teaching in Canadian universities and college libraries (Julien and Leckie, 1997; Julien 2000; Julien 2005). Beyond the situational analysis of Whitehead and Quinlan (2002), these studies have provided a longitudinal overview of information literacy teaching practices in Canadian higher education. With the most recent (fourth) version of the research having been published in 2013 (Julien, Tan and Merillat, 2013), from data collected in 2011, these studies built on each previous study to provide an overview of information literacy teaching in Canadian higher education over time.

The 2000 survey questionnaire was distributed to 408 university and college libraries, and achieved a response rate of 51 percent. The instrument involved open- and closed-response questions which were analysed using both quantitative and content analysis methods. The survey gathered information on the type of library resources that libraries were teaching to students (including the library catalogue, indexes, the Internet), as well as the methods that librarians used. Comparisons were made to the previous study conducted by Julien and Leckie (1997), even though the institutional responses were significantly different. Strikingly, the importance that librarians ranked their teaching outcomes remained identical over the two studies, in which “[t]eaching clients to find information in various sources continues to be the primary objective of instruction in Canadian academic libraries” (Julien, 2000, p.514), and that two consistent barriers to information literacy teaching continue to be barriers of limited resources and relationships (Julien, 2000). Little reference to critical application of information literacy other than teaching to critically evaluate sources, was noted.

The most recent longitudinal study, conducted by Julien, Tan and Merillat in 2013, was conducted by email distribution of survey questionnaires to 510 library staff members, using questions that were consistent with the earlier studies for more effective data comparison. The response rate was 24.1%, and a significant decline over time, from the 44.3% response rate in 2005, and the more than 50% response rates from the earlier studies. The primary purpose of the survey was to provide quantitative analysis of data regarding the formal information literacy teaching practices across Canadian higher education institutions, and the various measures of effort and assessment regarding their teaching. The results of the survey identified a departure from teaching physical resources toward digital resources, as well as the influence of technology on teaching practices. As in the 2005 study, librarians reported that they had reached only half of the undergraduate students in their information literacy teaching. Interestingly, information about the evaluation of assessment, although the response rate was higher than earlier surveys, was significantly lower than the 2005 response (29.3% did no evaluation in 2011 versus 13.6% in 2005). One final notable result was the increase in a critical approach to information literacy wherein the teaching of how to critically evaluate information had become a priority to a larger percentage of respondents from the 2005 study. The survey contributed to the understanding of information literacy teaching in Canada, particularly in its nature as a longitudinal study, and highlight the development of librarians' understanding of the increasing need to critically evaluate information, rather than simply teaching tools-based instruction.

In an earlier qualitative study, Julien and Pecoskie (2009) conducted semi-structured interviews with 56 librarians and library workers across Canadian academic and public libraries regarding their perception of themselves as teachers. Using a grounded theory approach, the authors identified themes related to the experience of library workers, with a significant identification of success as "faculty negotiation and relations, rather than in terms of students' learning" (Julien and Pecoskie, 2009, p.151). Several themes resonated with the findings of my research: The themes of "gift giving"

(p.151), “defence behavior” (p.151), and “experiences of disrespect” regarding interactions with faculty (p.152) are comparable to the findings in my research, even while the research itself, with its small population across multiple library types and regions, is not generalisable to the higher education environment of Canada.

Focussed research on practices within institutions in several Canadian jurisdictions have also been published. Research areas included the perception of teaching faculty to librarians’ information literacy teaching at York University in Ontario (Bury, 2011); the success of specific collaborative teaching programmes at Ryerson University in Ontario (Reed, Kinder, and Farnum, 2007); and of credit-bearing information literacy courses at the University of Alberta’s Augustana Campus (Goebel, Neff, and Mandeville, 2007). Other scholarship in Canadian information literacy teaching looked at specific forms of IL teaching, such as the teaching partnerships between the discipline faculty and librarians at the University of Manitoba (Ducas and Michaud-Oysttryk, 2003), the University of Manitoba’s library case study related to improving information literacy teaching through embedding librarians within a textiles programme (Dakshinamurti and Braaksma 2005), and in relation to Canadian library involvement with first year experience activities through a literature review of “library instructional services to first year students” (Trescases, 2008, p.308), and which outlined the differences between Canadian and U.S. higher education teaching experiences.

More applicable to my research, information literacy teaching across institutions in the Atlantic provinces was studied by Cull (2005). In his research, Cull conducted interviews with a representative sample of teaching librarians at six higher education institutions in the provinces of New Brunswick, Nova Scotia and Newfoundland. From a total population of 31 teaching librarians at these institutions, 18 librarians participated in in-person interviews. In contrast to my research, the population involved different (provincial) educational jurisdictions and all were university (four year degree granting) institutions. The results of the research, while not generalisable, did

provide a snapshot of the experiences and challenges of teaching in university settings in the Canadian Atlantic provinces early in this century. Cull found that librarians were engaged strongly with information literacy teaching development, took a student-focussed approach, had limited education in teaching, and were applying an outcomes-based approach to their classes. Of particular interest were the librarians' self-perception as teachers both in the classroom and in individual research support roles: "the librarians remained hopeful about their future teaching roles, several of them expressing the general belief that information literacy instruction can help to strengthen the library's central place in the academy" (Cull, 2005, p.19). This optimism needs to be situated in the emerging role of librarians focussing specifically on teaching as a critical aspect of their work in higher education in Canada, early in the 21st century. Anticipation of challenges to the role of the academic library due to budget constraints at that time, and other persistent challenges, including time constraints and the need for stakeholder support to enable successful information literacy teaching, remain consistent across the decades and across the geographic regions (Cull, 2005).

A recent literature review by Dunn and Xie (2017) examined peer reviewed articles on the teaching of information literacy within science programmes in Canadian higher education. The themes identified in their review provide important validation of themes that have arisen in the literature of information literacy teaching across jurisdictions, indicating that the teaching experiences in any institution or province are not unique when compared across many institutions. Significant themes from their review included collaborations; use of information literacy models and guidelines; curriculum development; teaching practices; and assessment. An important note by the authors is regarding the limited publications on the topic of information literacy teaching in Canada:

The authors are aware that not all Canadian universities require librarians to publish research, which, we believe, may limit the number

of publications concerning information literacy or librarianship generally. Thus, librarians should be encouraged to contribute to the published research on this topic (Dunn and Xie, 2017, p.279).

While some research has been conducted on the topic, as noted above, there continues to be limited scholarship into the application of critical information literacy in the Canadian context (Dunn and Xie, 2017). In their literature review focussed on information literacy teaching in Canadian undergraduate science programmes between 2000 and 2015, Dunn and Xie identified a number of themes of information literacy teaching, prior to the publication of the ACRL *Framework*. A number of consistent themes that they identified in the peer reviewed publications were revealed: In particular, the theme regarding the implications of faculty-librarian relationships as important for librarians' IL aspirations; and the need for assessment of IL teaching to allow for improvements in their pedagogy. What specifically differed was the range of models and guidelines for information literacy (IL) used by Canadian librarians during that time period. Due to their specific focus on science education, the Dunn and Xie literature review is informative of information literacy practices in Canada, but not explicitly applicable to the research I have conducted across disciplines in BC.

Librarians have also described the Canadian library experience in relation to what librarians in the US higher education context have been exploring (Trescases, 2008; Badke, 2017; Bury, 2017). Badke emphasises the ongoing lack of commonality amongst Canadian higher education libraries: "Canadian academic librarians have no singular stance on the definition, theory, or practices of information literacy" (Badke, 2017, p.51). Bury (2017), however, reflects on the scholarship into Canadian information literacy teaching which identifies that librarians are taking similar approaches to information literacy teaching in other countries. Her review of the literature "reveals motivations also evident in the work of critical IL researchers globally, that is, a reaction to the limitations of the traditional skills-based, "checklist," or standards-

based IL frameworks and a concern to embrace alternative pedagogies” (p.41).

A gap in the published research has been identified in the BC higher education context in relation to the scholarship of ‘critical’ information literacy teaching, and in the application of the ACRL *Framework for Information Literacy*. This current research responds to the call to action that Cull (2005) and others have made to address this perceived gap as they contend that “there is a need for other regional or case studies to be conducted on the current state of academic information literacy instruction in different areas of the country and for this information to be shared nationally” (Cull, 2005, p.19). The findings and implications for practice that I present in what follows constitute a significant contribution to this much-needed knowledge related to Canadian higher education librarianship.

Contribution of this Research

As the literature reveals, there is a clear gap in the research regarding both critical information literacy as a concept and a practice within higher education. In particular, there is a significant gap related to higher education teaching in BC higher education libraries. While there is a growing amount of research related to critical information literacy, the ongoing development of this concept speaks to the need for further exploration of the topic and its implications for academic librarians. For Canadian higher education, studies in other provinces provide a helpful foundation for understanding some of the academic library information literacy practices. The dearth of recent research into higher education teaching in Canada in general, and the fact that despite an extensive search of the published literature none could be found that investigated BC’s higher education practices. This current research, therefore, seeks to begin to address this gap.

The recent publication of the ACRL *Framework for Information Literacy in Higher Education* provides a clear opportunity to support the development of

practices founded on this new model. While the main purpose of this research is to review the understanding and application of critical information literacy teaching in BC, the implication of the ACRL *Framework* and its application in the province's higher education institution naturally surfaced as topics of discussion from the responses to the survey questionnaire and the interviews. This means that there is significant contribution to the scholarship on the ACRL *Framework* in practice, through this research, and particularly from a Canadian context.

4. Methodology

In this chapter I outline and justify the mixed methods approach that I have devised to conduct this research, including the overarching methodology and the specific methods used. I review the research questions used to gather data, and detail the data collection and analysis methods. Key issues that are addressed in the research include the validity and trustworthiness of the data, reflexivity and my insider/outsider role; generalisability; ethical considerations; and the analysis and interpretation of the data are discussed.

Design Frame

The research was developed as a mixed methods approach, and specifically an explanatory sequential design (Creswell and Plano Clark, 2007; Hesse-Biber, 2010). This method allows for the researcher to incorporate initial findings in early phases of the research towards developing the subsequent phases, and for informing the process through early discoveries in the data gathering. It also offers the researcher the ability to move back and forth between the data as it is gathered, to determine how the qualitative and quantitative findings inform each other (Hesse-Biber, 2010).

In my research, the initial phase was a review, through content analysis, of documentation regarding information literacy teaching. The content analysis process included a review of the ACRL *Framework* for information related to critical approaches to information literacy teaching, and a review of documentation available through BC higher education library websites for policies related to information literacy teaching. At the same time, the development of the second phase, the survey of BC higher education librarians, was underway, informed by the data identified (or the lack of information) through the document content analysis. This second phase involved survey questionnaires emailed to the lead teaching librarian in each of the 25 public higher education libraries. Where the lead teaching librarian was not able to be identified (or where the institution was too small to have

this defined role), the survey was sent to the head librarian for that institution. At one of the institutions, survey questionnaires were required to be distributed to additional leads, as multi-branch and campus library systems had additional teaching leads. In total, 36 questionnaires were distributed and 24 responses were received from 22 institutions. The third phase of the research involved interviews with a self-selected set of librarians from the survey phase. From 24 survey respondents, 13 librarians agreed to follow-up interviews, representing 13 of 25 BC public higher education institutions. Information collected in the survey phase, as well as the review of library websites, informed the development and refinement of the questions for the final phase of the data gathering methods - the interviews.

Research methodology: Mixed methods approach

In developing an approach to the research, I considered my stance as a researcher. Upon reflection, I determined that I held an interpretivist epistemological stance, which recognises that knowledge is socially constructed, subjective, and open to interpretation. This process of self-reflection led me to a specific choice of research methodology and methods, including the most appropriate means of interpreting the data identified in my research (Hammersley, 2010; Maxwell 2013; Creswell, 2014). Based on these foundational ideas, I identified a mixed methods approach to be the one which would allow me to explore the truths related to information literacy teaching by academic librarians in BC. In particular, I identified mixed methods as an approach that could identify a variety of understandings of the meaning of critical information literacy and its application in BC higher education.

Selecting a mixed methods approach has been considered by many scholars as problematic, in that it incorporates different approaches that cross philosophical research paradigms (Creswell, 2011), and potentially may lead to incompatibility: “the incompatibility thesis disputes the key claim of the

mixed methods movement, namely, that methods and perspectives can be unproblematically combined” (Denzin, 2012, p81). Addressing these ‘problems’ arising out of different methods for collecting data is more or less a concern related to the extent to which distinct qualitative and quantitative approaches are utilised. At the same time, researchers also support the understanding that the data achieved through the different approaches may be considered to be “complementary, though not necessarily at ontological, epistemological and theoretical levels” (Brannen quoting Smith and Heshusius, 1986, 2004, p.284). According to Holloway and Todres (2003), mixed methods offers an opportunity to develop unique sets of activities to support the unique research being undertaken:

[A]n understanding of purposes and relative appropriateness of procedures leads to greater specificity about what can be mixed and what cannot. We are arguing for this concept of appropriateness rather than method for method’s sake on the one hand, or the flight from method on the other (p.346).

Due to the concerns raised in the literature related to mixing methodologies, the methods developed for this research were considered to address those concerns. The methods, including documentary analysis, then survey followed by interviews, generated both qualitative and quantitative data. The quantitative data generated, however (a small set of demographic information for comparison purposes), was intended to be interrogated for identifying some generalisable conclusions, rather than attempting statistical analysis and conclusions through the small data set. The purpose to the quantitative data collection was primarily in support of the identification of academic librarian perspectives or ‘truths’ related to their understanding of theory and practice in information literacy teaching. The quantitative data supported the ability to compare and contrast against the qualitative data, for enriching the data.

Other cautions for using a mixed methods approach involve the recommendation for “epistemological reflexivity” (Macfarlane, 2009, p.125) in the development of the research process, including the design, execution and data analysis. Hesse-Biber (2015) urges the researcher to understand that reflexivity is integral to mixed methods research:

Deploying reflexive practices that allow both the quantitatively and qualitatively driven researcher to look at what values and biases he or she brings to the research process, as well as building in reflexivity across the research process itself, can serve to strengthen the overall mixed methods design (p.785).

From these initial recommendations, I incorporated reflexivity within the research planning and process. The reflexive approach which I considered in all aspects of the research is described later in this chapter.

As noted above, the mixed methods approach that I undertook was based on the “explanatory design” approach of Creswell and Plano Clark (2007, p.71) and Hesse-Biber (2010), which allows the researcher to follow an initial exploratory phase with a secondary in-depth qualitative phase. Rather than explicitly using a quantitative approach followed by a qualitative approach, my methodology involved gathering both quantitative and qualitative data in the survey, and informing the development of the interviews through the quantitative and qualitative data gathered in the survey phase. This approach also allowed me to identify themes that arose within the first phase, involving the documentary content analysis method followed by the survey, and which then further contributed to the development of the interviews. The mixed methods research approach benefitted this research process through the ability to gather data using different methods (Johnson and Onwuegbuzie 2004; Maxwell, 2013).

My decision to apply mixed methods in this way allowed me to identify a number of broad understandings, or truths, of librarian perceptions,

experiences, and interest in respect to critical information literacy and its application in teaching and library practices. It also allowed me to explore further the themes that arose in the survey in the subsequent in-depth interviews. This multi-stage approach of the documentary analysis followed by survey, revealed data related to both high level and specific perspectives on information literacy teaching, as well as demographic information that allowed for comparison across type of institution, location, and individual librarian tenure and expertise. The in-depth exploration and contextual clarification of the interview data allowed me to confirm and validate the data from one set with the other. While not formal triangulation of the data, this approach was intended to allow the 'truths' to emerge as data, based on the librarians' own language of their individual contexts (Denzin, 2012), and to understand these in the wider context of practice in the province. Reflexive practices were incorporated, and are described later in this chapter.

In developing the approach to this research, I reviewed the literature that identified both the benefits and the limitations of mixed methods research (Cresswell and Plano Clark, 2007; Hesse-Biber, 2010; Cohen, Manion, Morrison, 2011; Denzin, 2012). Had I only focussed on one method, such as only conducting a survey, there would have been potential negative impacts to the research, including the limited amount of data generated, the lack of ability to pursue interesting themes that arose, the potential to miss any unexpected findings, or the possibility of misinterpreting the data through lack of follow-up or further inquiry. By using a three-phased approach, the interviews were developed to build upon both the research questions, document content analysis, and the results gathered through the survey questionnaire. Furthermore, as interview candidates self-selected for the follow-up interviews, the ability to confirm or correct my interpretation of the data was incorporated through personalizing the interview questions based on survey responses (Johnson and Onwuegbuzie, 2004; Maxwell, 2013).

The research gathered qualitative and quantitative data from academic librarians representing the 25 public academic institutions in the province of

British Columbia. The methodology involved identifying one lead teaching librarian per institution, with the intention of being able to deliver the potential of generalisability across the entire BC public academic library environment. The survey recorded data from 22 of 25 public institutions in the province, ensuring that there is a level of generalisability to the results.

Research Questions

The questions that informed the research are as follows:

How are librarians in BC higher education applying critical information literacy in their practice?

- a. How do academic librarians understand the term “critical information literacy”?
- b. How do academic librarians understand the role of critical information literacy in their instructional practices?
- c. How are librarians using the critical information literacy aspects of the *ACRL Framework* in their teaching?
 - i. What, if any, *Framework* concepts do they find the most challenging to understand and implement in practice?
- d. What challenges do academic librarians report?

This research set out to gain insights into participants’ understanding and application of ‘critical’ aspects of information literacy within the public higher education libraries in BC, at a time when the newly-published *ACRL Standards and Framework* loomed large in BC academic librarians’ IL awareness. The staged approach and the research questions themselves were developed to focus primarily on critical information literacy; however, some questions related to the *Framework* were included in the survey questionnaire and naturally arose as part of the discussions in the semi-structured interviews due to the relevance of the new *Framework* to IL teaching librarians. As is clear in the *Findings* and *Conclusions* chapters, while I was primarily focussed on ‘critical information literacy’, the currency and prominence of the new *ACRL Framework* within the North American

academic environment meant that librarians often spoke about the impacts and opportunities arising from the new Framework, with little or no prompting.

The design frame for this research was a mixed methods multi-stage approach. The three-stages included:

1. A documentary analysis involving a critical review of the literature on critical information literacy, including critical information literacy in the context of the new ACRL *Framework*, a content analysis of the *Framework* for aspects of criticality, and any other guidelines influencing information literacy teaching in British Columbia (BC);
2. A survey questionnaire administered to the lead teaching librarians at all 25 of the public higher education institutions in BC, to gather both qualitative and quantitative data from participants, and resulting in 24 responses from 22 institutions;
3. 13 semi-structured interviews with instructional librarians from public higher education institutions recruited from the survey participants.

Data Collection

Documentary Analysis

Documentary analysis took place to help inform the development of the questions for the survey and the interviews. The approach taken was a content analysis of a purposeful set of documents relating to the ACRL *Framework* for Information Literacy, and BC higher education library websites for the presence of information literacy teaching policies, or policy and practice documentation (Altheide and Johnson, 2011). Under consideration within this method was that documentary analysis identifies the “processes through which texts depict ‘reality’ [rather] than whether such texts contain true or false statements” (Silverman, 2000, p128). Specific considerations employed in the documentary analysis included the origins of the documentation and its stated purpose; the intended audience; analysis of

what may be missing; and whether the purpose of the document has changed between the original guiding principles and its final form (Flick, 2014).

A content analysis process may be deductive or inductive, and allows for identifying whether themes exist or not within documents (Zhang and Wildemuth, 2009; Elo et al., 2014; Drisko and Maschi, 2015). The trustworthiness of documentary analysis within research is considered problematic by some, due to the nature of the works themselves which can encompass a range from personal journals and reflections, to published reports and policies (Elo et al., 2014; Creswell and Cresswell, 2018). A variety of well documented processes, however, has led to acceptance of content analysis as a valuable contribution to data analysis within qualitative and quantitative research (Hsieh and Shannon, 2005; Prior, 2014).

Furthermore, the nature of the research described here is such that I am attempting to identify the truths that librarians in higher education report, and made public through policy and guidance documentation. Specifically, within the overall context of this mixed methods research, a deductive approach to content analysis was taken (Graneheim, Lindgren and Lundman, 2017; Elo et al., 2014; Hsieh and Shannon, 2005) which involved identifying terms (or codes) against which the text was analysed.

The primary purpose of reviewing secondary documentation as part of this research was to identify and gather together any policies regarding information literacy teaching in BC higher education institutions. The process of identifying policies included a review of each academic library website, and a follow-up with individuals in the interviews, regarding the existence of any policies. The second purpose of the documentation was to identify information related to critical information literacy surrounding the development process of the *ACRL Framework*, the *ACRL Framework* itself, and the background documentation related to theories underpinning the development of the *Framework*. The third purpose of secondary documentation was to refer to the annual Council of Post Secondary Library

Directors CPSLD statistics both as additional data for analysis and, where appropriate, to support the analysis of data collected through the survey questionnaire and the interviews. All CPSLD statistical data was freely available on the CPSLD website as PDF or Excel files at time of writing (CPSLD, 2018).

Policies, procedures and guidelines in BC higher education libraries

A review of the 25 higher education public institution library websites was undertaken to determine what information regarding librarian information literacy teaching was publicly available to staff and students of each institution. In addition, to address the possibility that policies may only exist within the private servers or intranets of the higher education institutions, librarians were asked to identify or provide any information on information literacy teaching policies in their library. With the exception of three institutions, all of the libraries' websites provide some information on the public library site regarding the availability of IL teaching or supporting documentation, guidelines or recommendations in information literacy for the teaching faculty and students. While library policies were available on a number of sites, none referred to an information literacy policy or even an overarching teaching policy. Guidelines for the teaching that librarians undertake were provided on the majority of library websites either with a form for submission to request a librarian to teach a class on research or information literacy generally, or as part of the overall description of library services. In addition, none of the librarians involved in this research were able to provide a policy related to information literacy teaching at their institution.

A number of the library websites provided guides intended to help students, such as "spotting fake news" (BC Institute of Technology) or assessing websites (Camosun College, Justice Institute); videos for students and faculty regarding plagiarism and citation styles (College of New Caledonia, University of Victoria); while others provided suggestions for assignments that would be appropriate for an information literacy class (University of

Northern BC, University of BC, University of the Fraser Valley, Vancouver Community College). Two of the 25 institutions specifically noted the ACRL *Framework for information Literacy* or the ACRL *Standards* (North Island College, Simon Fraser University). With respect to terminology, most libraries referred to information literacy offerings as a “library orientation”, as well as information on citation and plagiarism, while a small number described “research education classes” (Camosun College), “research skills instruction” (Douglas College), or “information literacy skills development” (College of the Rockies). Overall, larger institutions tended to have more in-depth information on their library websites regarding IL teaching that was available to their academic communities, than smaller institutions.

In the survey questionnaires and interviews, each participant was asked about their library’s existing information literacy teaching policies. In response to the question in the interviews, individuals were not able to provide any policies from within their institution. Librarians pointed to their institutions’ website guideline information related to the activities involving information literacy teaching, but not one was able to identify or provide a policy originating within their institutions that directed information literacy teaching. As noted above, the search of each of the academic library websites was unable to yield any policies related to information literacy teaching within the institutions. There were simply guidelines and recommended practices for the teaching faculty. Further information related to the types of guidelines that the higher education libraries have generated to promote information literacy teaching within their institutions, arising out of the survey responses and interviews, is covered in the *Conclusions* chapter.

ACRL Documentation

The ACRL documentation regarding information literacy in higher education was reviewed with a key focus on the concept of critical information literacy, using a basic content analysis. The documents that were analysed were primarily the ACRL *Framework* (as it was submitted to the ACRL Board for approval in 2015, and published on the ACRL website), as well as the

documentation related to the development of the *Framework*, which was also available through links within the ACRL Framework site pages. A method involving word/phrase searching for the term 'critical information literacy' and identification of themes regarding the presence of statements related to theories, was undertaken. This process was intended to determine the extent of reference to critical approaches to information literacy teaching, specific reference to critical information literacy within the ACRL *Framework*, and the references to teaching and learning theories that underpin the *Framework*. This content analysis approach acted as a means to verify concepts in the *Framework* documentation against librarian perceptions. This work also informed the development of the survey questions and some of the interview prompts, and to confirm or contrast data that emerged from the survey responses and interviews (Hsieh and Shannon, 2005; Prior, 2014; Drisko and Maschi, 2015).

The documentation on the ACRL *Framework*, in particular, describes the exploration of a number of theories that were considered in the development of the *Framework*. While this research, through a directed content analysis approach, was not intended to probe too deeply into the developments of the ACRL *Framework*, the use of qualitative content analysis allowed for the identification of themes or language related to criticality in information literacy pedagogy. As an approach, this analysis was used to identify the content of those themes, and to inform the subsequent methods within the research. These latter analyses were addressed through the survey and interview methods.

CPSLD Documentation (Statistics)

The Council of Post Secondary Library Directors (CPSLD) conducts an annual collection of statistics from all of its member institutions (CPSLD 2018). These statistics provide a range of information about the services and size of the institutions, and was useful in the context of this research for validating and confirming information collected within the survey questionnaires and interviews (Prior, 2014). The data were used solely for

this validation and comparing and contrasting purpose, rather than for conducting additional quantitative analysis.

Survey Questionnaire

The literature on quantitative research tells us that a survey questionnaire allows researchers to quantify descriptions related to opinions and ideas, and has the potential to identify generalisable data (Cohen, Manion and Morrison, 2011; Creswell and Creswell, 2018). It also forms an important part of mixed methods research by providing quantitative data to complement more in-depth interview responses (Brannon 2006; Maxwell, 2013).

The questionnaire was developed to elicit information regarding academic librarians' understanding and engagement with critical information literacy within the information literacy practices of their library or academic setting. As noted earlier, the survey was the second phase of the data collection and intended also to inform the interview process, detailed in the *Interview* section of this chapter. As such, the planning involved clarifying the research questions, considering the design of the survey based on the research questions; developing the survey questions in support of the research questions; identifying the survey tool and data collection methods; determining the population and sample, including consideration of bias; and piloting the survey questionnaire (Cohen, Manion and Morrison, 2011; Creswell, 2014). Participants were selected as representatives of their higher education institutions, as described in the *Sampling* section, below. Participants were informed of the purpose of the survey in an introductory email and, as the representative for information literacy teaching at their institution, they were provided with a link to the questionnaire. Once an individual had agreed to participate in the survey by linking through the email survey link, an explanation of the purpose of the research and an opportunity to opt in or out of the research was provided at the beginning of the survey. After reading the informed consent page, a potential respondent could choose to agree to contribute to the survey, or to opt out of the research. A respondent who decided to opt out would have been routed to the end of the

questionnaire with the ability to provide any anonymous comments before exiting the survey. There were no librarians who selected to opt out of the survey.

For practical purposes, the CPSLD group of institutions (comprising 25 public and two private institutions), served as the participant population for the study. The listserv for the Council was the conduit for both communicating about the proposed research and as the distribution network for identifying specific individuals for the research (if that could not be done through their library website). The two CPSLD private non-profit institutional member libraries also offered to participate, and a librarian from each of those institutions were recommended by their library administrators. The participation of the two non-profit private institutions enabled the potential for piloting the survey questionnaire within the BC higher education environment.

The questionnaire was intended to be distributed directly to the individuals who were responsible for leading the teaching of information literacy at their higher education library. For each of the 25 public institutions in the province, the library website was reviewed for contact information for the lead for information literacy teaching. Where there was no contact information provided, the head of the library (the Dean, Director or University Librarian) was requested to provide a contact name and email for the appropriate research participant. In the case of several smaller institutions, the library head recommended themselves as the appropriate respondent, given the nature of their role within that library. A spreadsheet of contact information was maintained and updated as information was received from the 25 institutions. Due to the nature of the different libraries, however, on two occasions, requests were made from the library head to distribute the survey to more than one individual in their library. For example, libraries that had a number of specialised branch libraries also had individual branch heads, who were deemed to be the appropriate individuals to respond to the survey.

Survey questions were developed based on the research questions (RQs) and the overarching themes of the research (Johnson, R.B. Onwuegbuzie, 2004; Schensul, 2012; Maxwell, 2013). A spreadsheet was developed to link the research questions with the details of 'what I wanted to find out', ensuring that each question was linked directly to a RQ to avoid asking unnecessary questions or gathering unrelated data (Bierner and Lyberg, 2003). For clarification regarding the themes and questions, the survey question matrix is provided in *Appendix 1*.

The choice to use an online survey system was made due to the balance of advantages over the disadvantages. The advantages included the ability to reach individuals across a large geographic district; the ability for respondents to complete the survey directly; and to contribute by inputting information using their own terminology through the qualitative (open-ended) questions; the minimal costs (no direct costs); and the ubiquity of web access for respondents. Disadvantages to the use of a survey included the potential of online survey fatigue and technological barriers to access (Sue and Ritter 2012). While survey overload and timing of the survey, in late summer and early autumn, were potential barriers, the use of a standard web-based (browser) system minimised technological barriers.

The Bristol Online (BOS) system (now known as the JISC Online Surveys) was identified as a survey tool that would enable appropriate design and distribution of the questionnaire, effective protection of data, and the ability to analyse the response data online or downloaded in various formats. A survey questionnaire was developed to elicit responses to the overarching research questions. These questions were developed and organised based on the themes that underpinned the research questions, and were also explicitly linked to the questions intended to be asked in the interviews. Mechanisms for ensuring the survey was welcoming and user friendly were incorporated into the structure of the questions and the survey design (Fowler, 2009; Sue and Ritter, 2012), and tested in the pilot phase. Skip logic, or survey routing, mechanisms within the survey that allow respondents to move through the

questionnaire based on their ability or willingness to answer questions, were deployed in the structure of the survey to minimise the length of time needed to complete the survey instrument. These mechanisms allowed each librarian to proceed in a logical and efficient manner through the questionnaire, based on their ability to respond to questions. Librarians who did not have much information to share about critical information literacy or the ACRL *Framework*, for example, could contribute general comments, but were not required to provide responses that would highlight their lack of awareness or knowledge, and which could render the survey an unappealing experience.

The survey questionnaire comprised 39 questions over 16 pages, including all routing and sub-questions, with opportunities for comments in free text format. Once a respondent had agreed to complete the survey, the survey routing could have required the respondent to complete as few as 12 of the 16 pages, depending on their interest or ability to contribute responses. A copy of the survey questionnaire is provided in *Appendix 1*, and survey routing is shown in *Figure 1*, below.

A combination of closed and open-ended questions including a range of multiple choice, Likert scale, and dichotomous (yes/no) questions was asked (Sue and Ritter, 2012). A small amount of demographic information was collected related to the institution where respondents were employed, such as type of academic institution, number of librarians (Full-time equivalents or FTEs) within the library, number of students served, geographic location, as well as information related to the participant's number of years as an academic librarian and number of years of teaching (in any library context).

In addition, all respondents were asked whether they would be willing to participate in an interview for further explorations of the topic of information literacy. Respondents were not required to identify themselves in the survey other than once they agreed to participate in a follow-up interview. The intention was to recruit ten interviewees from the total population of survey

questionnaire respondents. The following illustration (Figure 1) describes the survey map and survey routing:

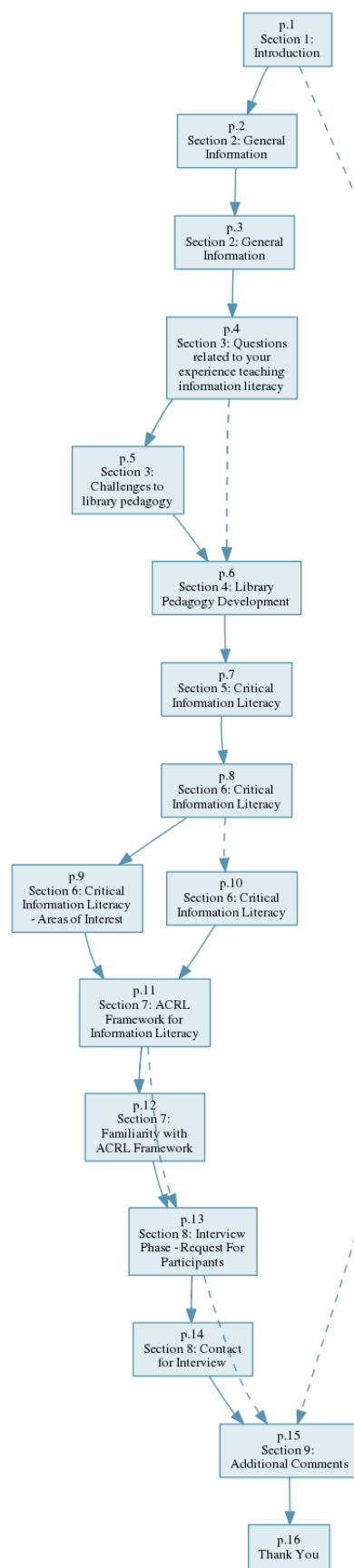


Figure 1: Survey Routing

This survey method helped gather general information and perceptions from a number of librarians across the spectrum of public higher education institutions in a large and geographically diverse province. The structure allowed for responses to be compared and contrasted across institution types and by length of experience as teachers and academic librarians. The types of questions were also intended to identify areas for further exploration in the interview process (Creswell and Plano Clark, 2007). Due to the physical size of the province, an online survey allowed for standardised access for the librarians at each institution, in a manner that allowed them to contribute their input at their convenience, over a period of time.

Pilot Survey Questionnaire

The survey questionnaire was opened as a pilot on August 27, 2017. The questionnaire was distributed, through a link embedded in an email, to four individuals who were researchers or librarians, but who were not members of the potential pool of public academic librarians. Participants in the pilot were identified to test the survey because of their expertise in research processes or because of their understanding of information literacy teaching. The four pilot participants were: 1) a non-librarian health researcher; 2) a librarian working in a BC public library environment, and 3-4) two librarians working in BC private academic libraries. Three of the four individuals completed the survey and provided feedback with suggestions for possible improvements. One of the three respondents provided both feedback on the survey instrument, and also completed the survey with information intended to support the research.

Responses from the pilot survey were received by the first week of September, and minor adjustments to the survey structure and instructions was completed. The data from the one completed pilot questionnaire, received on August 28th, 2017, were incorporated into the analysis of the data gathered from the main survey (Fowler, 2009; Sue and Ritter, 2012).

Having both librarians and non-librarians review the questionnaire was beneficial as it helped to identify any jargon with which respondents in the main survey may be unfamiliar and to improve routing and the wording of the questions. Only the data from one of the completed pilot survey questionnaires (the one response from a private academic library) were analysed with the results from the main survey. The other pilot survey responses were completed by the respondents with the intention of suggesting improvements to the questionnaire, rather than to contribute data to the research.

Survey Sampling

The Council of Post Secondary Library Directors (CPSLD) represents the complete population of public and private non-profit academic institutions in the province, which in total comprises 27 institutions (25 public and two private institutions). For the survey pilot, a sample of non-population members (private institutions) was purposely selected ($n=2$), due to the small number of the total population ($n=25$) in the main survey.

The overall population for the research was the purposive sample of one representative librarian (the lead teaching librarian) from each of the 25 public higher education institutions in the province. Sample bias was minimised by the method of identifying representative libraries through the individual institutions' websites. When there was no individual identified as the IL teaching lead, the head of the Library was queried for the appropriate individual's contact information. The original intention for the survey sample was to reach one representative from each of the 25 institution libraries; however, because larger institutions have multiple libraries and multiple campuses, additional responses from one of the larger institutions were received. The decision was made to increase the sample number, following advice from a representative from two institutions, who recommended additional potential respondents. From the initial population of 25, the additional potential respondents, as provided by two of the institutions, meant a total potential population of 36 individuals, for a total sample population of

36 individuals from 25 institutions. The actual number of responses received was 24 responses from 22 institutions.

Conducting the Main Survey

The launch of the main survey was on August 30th, 2017. This date was selected because it was anticipated that academic librarians would be returning to their libraries following their summer vacation and professional development activities, but it was before the classes for the September term were due to start. The first response received was on August 31st and the final on October 9th.

An email invitation which contained a direct survey link was sent to each of the 25 individuals identified by the academic libraries as the most appropriate potential respondents. In two instances, the survey was forwarded to other librarians within the institution, because in each case there was a shared responsibility for leading library teaching in the institution.

While individual institutions were not tracked within the survey, identification of an institution's completion of a questionnaire was made obvious when the respondent agreed to a follow-up interview (and thus provided their contact information). Institutions could also be confirmed by cross referencing institution type, geographic region and size of students served. A spreadsheet tracked the confirmed survey responses, and two reminders were distributed between September and early October to the specific library contacts to complete the survey before the deadline. The survey closed initially on October 9, 2017 but was extended for two respondents who reported that they wished to complete the survey but had not had enough time. No further responses were received after October 9.

Based on the recommendations from the largest institution in the province, a separate copy of the survey questionnaire was opened for this institution to allow them to provide multiple responses based on their many branch libraries and campus library locations. This was done in an attempt to

sequester multiple responses from one institution; however, these respondents provided unique and valuable insights into the different teaching practices within different branch libraries within a large institution. Ultimately, the responses were combined into the main survey for analysis, and the over representation within the research library category has been identified in the results.

Initial coding of the responses and consideration of the interview process began following the receipt of the first survey responses in late August. Review of the responses took place within the BOS system and by downloading regular reports on responses during the open period of the survey. Once the survey was closed, all responses were reviewed in the BOS reports and the process of initial coding continued. The output from the surveys was also uploaded into NVIVO including the PDF files of each individual response, and an Excel spreadsheet of the total reports.

Interviews

The third phase of the research was to conduct interviews to gather additional information and to explore further themes which had emerged from the survey (Creswell and Plano Clark, 2007). The semi-structured interviews were developed to be undertaken in a conversational style with both interviewee and researcher as active participants (Holstein and Gubrium, 1995; Biemer and Lyberg, 2003).

Due to the geographic dispersion of the higher education institutions in the province, all interviews were planned to be conducted online, using the BlueJeans online video meeting system. Use of an Internet system allowed me to use traditional methods in an online environment, recognizing that in-person and virtual realities have become intertwined (James and Busher, 2012). A web-based system also allows for participant and interviewer to come together in an environment that is natural to their work and to the context of the research (Kazmer and Xie, 2008). While other Internet-based options were possible, such as email or chat interviewing, I selected web-

based synchronous meeting software for the ability to conduct a more natural conversation with participants than through a text-based or asynchronous tool (Kazmer and Xie, 2008; James and Busher, 2012; Salmons, 2012).

The BlueJeans system enabled web-based audio/video or simply audio meetings. In addition, the facility to record interviews and then export these recordings was a feature of the system. Prior to engaging in an interview, clarification of the system and a system invitation were sent to the individual participants.

Interview Sampling

Interview participants were identified through the survey. As part of the survey, a question asked respondents whether they would agree to participate in a follow-up interview. From the total survey population of 25 institutions (with 36 potential survey sample), 13 individuals representing 13 different public institutions agreed to a follow-up interview. In addition, the one pilot survey participant (private non-profit institution) also agreed to an interview.

The original intention was to conduct a minimum of ten interviews representing ten different institutions in the province, in a purposive non-probability sample (Cohen, Manion and Morrison, 2011). Ideally, the ten interviews would include representatives from each of the institution types and different regions in the province. The result of the survey led to 13 individuals from 13 different institutions agreeing to be interviewed (in addition to one volunteer from the pilot survey of the private institutions). All of these volunteers were selected for interviews, and so selection bias was minimised through this decision (Creswell and Creswell, 2018).

Representation spanned geographic and institution type, as is shown in the *Findings*.

Each individual was contacted by email to confirm their agreement to be interviewed and to set up an interview date and time. Several weeks were

set aside to conduct the interviews, and a variety of dates and times were offered to each individual. Information about the interview process, including an informed consent form and a description of the BlueJeans meeting system, were provided. Each interview was planned to last between 1 - 1.5 hours, and meeting invitations were distributed first with an Microsoft Outlook calendar invitation and confirmed through the BlueJeans system. The meeting invitation through BlueJeans included connection information and reminder notices delivered to each individual participant. Informed consent forms were distributed via email and returned signed by each participant prior to an interview being conducted. All participants who indicated that they would be willing to be interviewed agreed to interviews between the dates of November 14th and November 28th, 2017.

The interviews were intended to be semi-structured in nature, to offer a number of standardised questions and prompts, along with the flexibility for participants to lead the discussions as they saw fit (Cohen, Manion, Morrison, 2011; Brinkmann, 2014). From this premise, a common set of questions was developed based on the original question matrix (see *Appendix 1*) addressing the research questions. The question matrix, which followed a consistent thematic structure, enabled the development of questions for the survey and follow-up questions for the interview (see *Appendix 1*).

A common set of 15 interview questions was initially generated following the review of the information collected through the survey responses. Questions for the interviews were developed to follow-up as probes to the responses gathered in the surveys, or to further explore ideas that would not be possible within a survey context. The relationship of the survey questions to the interview questions was noted in the questions matrix and monitored for potential redevelopment as data collection progressed. From an initial common set of questions, each individual's completed survey was reviewed to connect the responses already provided to the development of their specific interview questions. While there was some potential duplication of

questions, the purpose was to provide an opportunity for follow-up discussion, as well as further probing of comments from the survey, both from the overall results and those specific to the individual.

Prompts were developed to assist in clarifying questions or to address areas for further exploration. While having 15 questions provided a level of structure to the interviews, many of the questions served as prompts rather than as stand-alone questions, with the expectation that participants could lead the conversation as it emerged naturally. As an inexperienced research interviewer, being prepared with more structure supported the process in a way that ensured consistency across interviews, without requiring that participants answer all of the questions or respond in a specific order to the planned questions (Creswell and Creswell, 2018).

An interview schedule or protocol was developed to include an introduction to the purpose of the interview, the prepared questions and prompts for follow-up. Each interview schedule was reviewed prior to conducting the interview, to ensure that the experience from each interview informed the subsequent interview schedules (Riach, 2009). The interviews ended with a recap of the next steps in the process, including the potential for follow-up questions. *Appendix 2* contains a sample interview schedule.

Pilot interviews

The pilot interviews were conducted the week of November 6th, 2017, and were intended to test the planned interview process and questions. The pilot involved one individual from a private non-profit higher education institution (the individual who also piloted the survey), and an individual who completed the main survey and who represented one of the public institutions. The 15 interview questions and prompts were individually tailored to reflect and follow from the responses provided by the individuals' survey responses, and in a process that supports reflexive practice (Schwandt, T., 2007; Riach 2009). One interview was audio only while the other was audio and video. This was due to the technological connectivity differences of the two libraries.

The two pilot interviewees provided useful feedback on the language and wording of the interview questions, and they also generated ideas for additional prompts or explanations of the meaning and purpose behind some of the questions. The two interviews were very different, because of the different experiences of the two participants, and both provided additional considerations for conducting the main interviews. The experiences from these two pilot interviews were used to plan the interview schedules for the following 12 interviews for the study, and data collected were intended to be analysed along with the main interview data, creating a set of 14 interviews in total.

Upon reflection, the two pilot interviews, being so different in nature, were extremely helpful in improving my plan for the main interviews. As noted earlier, the two individuals, and their experiences and scholarship on the topic, were significantly different which allowed me, as an inexperienced research interviewer, to be better prepared to adjust the interviews as they progressed and to be prepared to allow the conversations to lead into unanticipated directions.

Conducting the Interviews

As noted above, 13 individuals from the survey provided their names and contact information for inclusion in an interview, in addition to one who had volunteered through the pilot survey process. The original plan had been to interview 10 individuals from different institution types and regions, based on the criteria of institution type (research university, teaching university, institution, college) and geographic location (urban, suburban/rural); however, because of the variety of individuals who volunteered for interviews, all of those who volunteered were included in the interview process.

In total 13 of 25 public academic institution libraries were represented in the interviews (1 being a pilot interview), with an additional 1 private academic

institution as a pilot interview. *Table 5.1* describes the participating academic institution and regional types in the Findings chapter. The participant group included representatives from all institution types and geographic regions. The main interviews were conducted over three weeks between November 14th through 28th, 2017.

As was the case with the pilot study interview questions, the main study interview questions were initially considered during the research planning process, and developed in a spreadsheet to link the research questions to the survey questions and to the interview questions (see *Appendix 1*). Following the survey and an analysis of the responses, further clarification and development of questions took place to ensure that follow-up interviews could address each librarian's responses uniquely, and seek further information on the themes that had emerged from the individual surveys.

Each interview was customised with prompts or wording to reflect the responses or lack of response provided in the participant's survey questionnaire, while also covering the same 15 questions. In one case, a participant, prior to the interview, asked if they could have access to their survey responses to remind themselves of their responses. The survey submission was sent to the respondent as a pdf exported from the online survey system. No other participant asked for or received a copy of their survey responses prior to the interviews.

Common questions involved demographic information (or confirmation of demographic information collected during the survey), including teaching background, and the number of years they had been employed at the particular institution (see *Table 5.2*). This information was collected to provide an opportunity to analyse responses based on experience and academic institutional context.

Since the interviews were to be conducted with participants across the province, for consistency, all interviews were conducted using the BlueJeans

web meeting system. Due to technological differences at individual libraries, four of the interviews were conducted as audio only (five interviews including the pilot public institution interview), while the remaining eight were video interviews. All interviews were recorded and downloaded. The individual interview schedules were used as the basis of the transcripts, and some note taking also took place during the interview process.

Transcription of the Interviews

The research methods literature tells us that decisions related to transcription are problematic and need to be explored (Estable, MacLean and Meyer, 2004; Oliver, Serovich, Mason, 2005; Skukauskaite, 2012), and that researchers need to be transparent in their decisions related to transcription (Skukauskaite, 2012). Transcription is also integral to the perceived quality of data and its analysis, and should not be considered merely a research task (Hammersley, 2010; Skukauskaite 2012). Transcription can be produced in a range of ways between a naturalistic and non-naturalistic representation of the interview (Oliver, Serovich, Mason, 2005). The literal transcription of all language and utterances, which attempts to capture the direct language and thus the meaning behind the participant's contribution is one approach. This approach may lead to a set of data that includes conversational fillers and hesitations which actually make the data analysis challenging, and may make "the interviewees appear less articulate than they actually were" (Estable, MacLean and Meyer, 2004). For these reasons, I attempted a reflexive approach to the transcription process. While transcribing all language from the recordings, I remained open and aware of my assumptions regarding the meaning behind the words, and actively reviewed sections of the dialogues during transcription to try to ensure accuracy to the meaning of the participants words.

Transcripts were generated from the interview recordings made within the BlueJeans web communications system, whether audio or video. The interview schedules were individualised and were used as the basis for note taking during the interviews. Following the interviews, these initial interview

notes were used to develop the full transcripts. By conducting the interviews and transcriptions myself, I minimised the range of errors that could be added to the data, beyond what I was adding through my conscious or unconscious interpretations (Estable, MacLean and Meyer, 2004).

Transcription of the interviews followed a strict documentation of the exact language of the interviewer and the participants to retain the language spoken by the individuals interviewed (Oliver, Serovich, Mason, 2005). The literature on interviews describes the purpose of the transcriptions is to help the researcher to notice different aspects of the data. It is an opportunity to uncover the epistemological stances of participant and researcher (Mann, 2016), but that it can lead to concerns regarding the level of interpretation that occurs during the development of the transcripts, including the loss of tone or context-specific meanings of words. “[T]he loss of meaning and unavoidable interpretation bias inherent in transcription” (Markle et al. 2011, p1) was one of the potential pitfalls to which I remained alert. To address these concerns, notes and comments were made within the Word documents of each of the transcripts, either during the transcribing process or upon review of the completed MSWord file. Notes were also taken in an Interview Notebook to track my thoughts about interviews or follow-ups to consider in respect to subsequent interviews. Initial codes were assigned for further consideration during the later data analysis processes.

I chose to preserve the language as closely to how it was used and recorded, as possible, including repetitions, sentence fragments and false starts, but I did not attempt to identify tone or other aspects of the verbal representation (Mishler 1986; Skukauskaite, 2012). The reason for this decision was to ensure that I wasn’t presupposing what the participant was saying, but rather, allowing the language throughout the interview to reflect the personal experiences and the understandings of the participant, as directly as possible. Allowing this process meant that I could read and re-read responses and review their potential meanings within the full transcript, rather than changing terms and losing the context of comments.

During the transcription process, I discovered, through my interview note-taking rather than the actual interview recordings, that I had initially made a number of assumptions about participant meaning. As I reviewed the notes and the understandings I had generated when participating in the interviews, I was occasionally startled to discover quite a difference from my initial interpretation of what I had heard. Many of these differences were significantly revealing. For example, when in the interview process I initially interpreted that a librarian had little awareness of criticality in their teaching practice (pilot interview 2), upon reviewing the recording and carefully transcribing the actual language of the participant, it became clear that an understanding of criticality lay behind the comments and specific language that that participant had used. Overall, this was a discovery that I made, as the researcher, as I progressed through the transcription and the coding processes for the interviews.

Transcriptions of interviews began while interviews were still taking place; however, most interview transcripts were completed after the interview phase of the research, during the week of February 17, 2018. Each transcript was uploaded into the NVIVO system when it was completed, and full coding was conducted within NVIVO.

Assigning Pseudonyms

Because of the ethical need to preserve the anonymity of the participants, reference to interview participants throughout the Findings chapter is through the use of pseudonyms. By de-identifying participants, using quotations and relating them to a type of librarian expertise or academic context is possible, without revealing the participant's personal identity (Tilley and Woodthorpe, 2011). The ability of the researcher to ensure complete anonymity, however, may not always be feasible, due to the length of the research engagement with an individual, the size of the community, or due to technology that may easily allow identification of participants (Walford, 2005; Tilley and Woodthorpe, 2011). While the use of a pseudonym does not guarantee

obscuring the identity of an individual research participant, it does offer some level of anonymity. In the context of this research, minimal personal information was requested, and solely to assist in the description of the findings within this paper, when related to a librarian within a particular type of intuition or with a particular length of professional experience (Mann, 2016; Saunders, Kitzinger and Kitzinger, 2015). Similarly, the location in which each librarian was working remained anonymous, by categorizing institutions by type, rather than the name. While there are not a large number of institutions in BC, the ability to match individual to institution from the data reported is limited. Survey participants were not given pseudonyms, and so references to survey participants' comments are noted as "survey respondent" within the Findings chapter.

The table (4.1) contains the interview participants and the assigned pseudonym:

Interview participant	Gender	Years of Experience	Pseudonym
Pilot Participant 1	Male	30	Dario
Pilot Participant 2	Female	20	Deanna
Participant 1	Male	11	Simon
Participant 2	Female	1	Wanda
Participant 3	Female	3.5	Katharine
Participant 4	Female	3.5	Hailey
Participant 5	Female	23	Monica
Participant 6	Male	12	Dennis
Participant 7	Female	16	Rose
Participant 8	Male	9	Martin
Participant 9	Female	5	Lydia
Participant 10	Female	16	Nicola
Participant 11	Female	11	Jessica
Participant 12	Female	32	Talya

Table 4.1: Interview Participants

Validity, reliability and trustworthiness

In mixed methods research, the validity and trustworthiness of methods and data analysis must be defined in both the qualitative and quantitative approaches taken. Qualitative and quantitative research looks to the validity of the approaches and the data to confirm the integrity of the results; but the definition of validity within these methodologies differs: “in qualitative data validity might be addressed through the honesty, depth, richness and scope of the data achieved, the participants approached, the extent of triangulation and the disinterestedness and objectivity of the researcher” (Cohen, Manion, Morrison, 2011, p179). Quantitative research in particular relies on the ability to repeat the methods to achieve comparable results; therefore, validity is considered by examining the internal and external consistency of instruments and the data collection processes; sampling approaches; and statistical methods and practices in the data analysis (Cohen, Manion, Morrison, 2011; Creswell and Creswell, 2018).

Trustworthiness in qualitative research requires a range of considerations that relate more meaningfully to the nature of qualitative research methods. From the selection and the appropriateness of the methods used, to the interpretation and reporting of the findings, qualitative research in particular requires particular considerations to communicate effectively the trustworthiness of the research (Bryman, Bell and Teevan, 2009; Maxwell, 2013). Guba (1981) used the terms “credibility” “transferability” “dependability” and “confirmability” as the potential criteria for addressing the trustworthiness of qualitative research (Shenton, 2004, p.64). Creswell and Creswell (2018) recommend using a number of approaches to address validity in qualitative research. They propose that researchers consider the triangulation of data; allowing participants to confirm the data gathered; incorporating in-depth descriptive practices of any qualitative setting; being clear about bias; reporting results that both confirm and contradict hypotheses; committing significant time to any field work; incorporating peer

input; and looking to external experts for research oversight. Depending on the methods utilised, some or all of these approaches are appropriate to clearly address validity of the results. For the research described here, each methodological approach is addressed for the purpose of addressing validity and trustworthiness.

Quantitative Data Validity and Reliability

The survey instrument gathered both quantitative and qualitative data. It was developed to begin to find answers related to the research questions, and it sought information about librarians' experiences, across a range of higher education institution types, and with different levels of expertise. As the approach taken was intended to generate data, ideas and ultimately themes related to librarians' individual experiences, the open and closed questions needed to be addressed for bias and internal validity.

As was noted earlier, the questions were developed and reviewed to ensure clarity of language and comprehension by both librarian and non-librarian respondents in a pilot process. In addition, the reliability may be addressed by ensuring the consistency of questions asked of each respondent, and the clarification of terminology used in the survey (Biemer and Lyberg, 2003; Fowler, 2009). This review involved an assessment of the mechanisms of the survey, including the links and routing, as well as the decisions made regarding types of questions. For example, I determined that applying Likert scales, or other closed questions, could ensure that the questions provided clarification of expected responses, while not leading the librarians to specific answers. Options for open-ended or 'other' responses were another mechanism that allowed librarians to add to the lists of possible responses which had been provided. The validity of the qualitative data is addressed in the following section.

Skip logic or survey routing was also employed to allow librarians to answer the questions that they were able to answer, without requiring them to

complete sections that did not relate to their experience or knowledge (see *Figure 1: Survey Routing*). Open ended questions and opportunities for general comments were provided within each thematic section of the survey and at the end.

The potential for sample bias was addressed through an attempt to receive input from the entire population of the intended research. This population was the lead librarian within each institution responsible for library pedagogy, and the sample was intended to comprise this entire population within BC.

The reliability of the survey data was addressed through following recommended practices for quantitative surveys, including: consistency, through the use of a standard instrument for the entire study sample; selection of respondents; and attrition (Cohen, Manion, Morrison, 2011; Creswell and Creswell, 2018). Due to the nature of the survey, descriptive rather than statistical analysis was conducted, and so no attempt was made to identify statistically significant results. Given the fact that the sample group comprises almost the entirety of the public academic institutions in the province, however, reproducing the research is feasible and some level of generalisability is possible (Cohen, Manion, Morrison, 2011). Validation of data, or external validity, such as confirming the types of institution participating, was conducted by comparison with the CPSLD statistics (Creswell and Creswell, 2018).

Qualitative Data Validity

Interview Data Validity

The interviews were conducted to build upon the qualitative data collected in the survey, and to further probe the survey responses. The sample was a subset of survey respondents (Creswell and Plano Clark, 2007; Creswell, 2014). Fourteen individuals volunteered to be interviewed (one from the pilot survey and 13 from the main survey), and I chose to interview all of these volunteers, rather than risk introducing a selection bias. In addition, the

potential to have the additional input from librarians across the province and across all institution types seemed to be beneficial to the overall data collection and potential for the findings.

Each volunteer was contacted to confirm their intention to participate in an interview, and was provided with an explanation of the interview purposes and process. Details regarding the collection and use of the interview data was provided to the participants prior to interviews, and was reiterated during the introductory phase at the beginning of each interview.

The process of the interviews and the questions themselves were addressed to minimise bias. Transcription was based on the interview recordings, whether audio or video, and the minimal notes taken during the interviews. A full transcription, including all of the natural language and hesitations, was purposefully produced to attempt to minimise interviewer or transcriber bias (Estable, MacLean and Meyer, 2004). The ability to identify hesitations and qualifications that could later be reviewed against the original recording, is one way of minimizing bias that can encroach into the transcription, and allows for validating and confirming understandings. A notebook was also used for the purpose of noting any differences or unexpected responses and to ensure that my perspectives as an interviewer were captured outside of the interview itself.

The questions were generated using the same process as the survey and followed a thematic approach based on the research questions. For the development of the interview questions, a review of the responses to the survey was conducted, and this was followed by adopting an individualised approach to modifying each standard question (where appropriate, based on the survey response of the individual). This approach intended to ensure a level of reflexivity into the processes (Skukauskaitė, 2012) by allowing the survey respondent to help inform the process of the data gathering in the interview, and acknowledging the research process as a shared knowledge creation process. The interview schedule was developed and reviewed by

my supervisors and the questions and further prompts developed. Two pilot interviews were conducted with two survey respondents who had agreed to be interviewed for the research to test the process and the clarity of the questions. Prompts were further refined and individual prompts were generated for each subsequent interview. Within the process itself, participants were able to direct the conversation, although the questions formed a structure which was followed by almost all of the interviews.

Secondary Data Validity

The only secondary data used in this research was the publicly available Council of Post Secondary Library Directors (CPSLD) annual statistical data on academic libraries in BC. This data was referred to for the purposes of identifying the categories of libraries within the context of this study, and for allowing for the comparison and contrast between libraries in BC. This data is collected annually using an agreed-upon, consistent set of definitions for the data. It is the only source of this type of data across the higher education institution libraries in BC, and is considered accurate for the purposes of library budgeting and reporting.

Secondary documentation included the review of the ACRL web pages that reference the *Framework for Information Literacy* and its foundational documents. The validity of a basic documentary analysis, while considered objective by some (Drisko and Maschi, 2015), may be problematic, given the positioning of the researcher, and the potential for web documents to change over time. This does not guarantee consistency of content for replication of the analysis; however, the nature of a basic content analysis minimises the potential for different interpretations (Drisko and Maschi, 2015, p.11).

Reflexivity

Authenticity and Bias

One aspect of trustworthiness in qualitative research is the degree to which the researcher applies reflexivity to the research processes. Reflexivity is a

challenging concept with a range of definitions. Reflexivity as a practice may mean consideration of “the degree of influence that the researcher exerts, either intentionally or unintentionally, on the findings” (Jootun, McGhee and Marland, 2009, p.) or “being thoughtfully and critically self-aware of personal/relational dynamics in the research and how these affect the research” (Finlay, 2012, p.318). The reflexive researcher needs to practise “self-questioning and self-understanding... while being conscious of their cultural, linguistic, political and ideological origins, and those they are studying” (Cumming-Potvin, 2013, p.5). How a researcher goes about applying reflexivity involves ongoing consideration, from the development of the methodology itself, and then throughout the process of interacting with research participants, and as the data emerge. Beginning with the development of the design frame, and the choice of a mixed methods approach, I considered it necessary to apply reflexive practices throughout the research process.

As a reflexive interviewer, I created notebooks to track my thoughts and experiences during the interview because this offered the potential for shared knowledge creation with participants. This meant consideration of the participants as leading the discussion, as well as their thoughts on how the research could improve or impact the practices under discussion.

During the interviews, the participants talked about the nature of research and its implications for the work that librarians conduct in higher education. These discussions had potential implications for my research and the practices that I was applying in this research context. Some questions that arose for me, as a researcher in this shared experience, and which I continued to reflect upon throughout the research processes included: Am I following the research practices they are advising?; What am I learning from the participants which might improve the methodology for my research?; What are the implications of what we are co-developing with regard to potential ‘best practices’ or knowledge sharing?

One aspect of reflexivity is the ability for participants to co-construct the research process with the researcher. In many cases, there was evidence that participants were undergoing their own reflexive practices through their participation in the research. For example, between the survey and the interview process, librarians spoke about their thoughts on the survey and their anticipation of the interviews, and this led them to engage in self-reflection and reflexive actions. Participants became reflexive through engaging actively in the research between the survey and interviews, and in their engagement by developing new perspectives which helped to shape the interviews themselves. My awareness of my role in the process with regard to the participants, and allowing opportunities for the participants to engage in and help construct the knowledge developed in the research, were aspects of being a reflexive researcher.

Riach proposes going further in an interpretation of reflexivity in research: "By considering ways in which a participant's account may be analysed as a reflexive product, we can understand the interview as producing multiple realities without falling into a spiral of self-reflexivity." (Riach, 2009, p.357). She proposes that researchers "consider ways of introducing participant-situated reflexivity" to the research process through "exploring the reflexive work of both parties involved in an interview" (p.357). In practical terms she suggests that we "should compare those reflexive moments 'in time' during the interview to those moments 'after the time' when the interview becomes an artefact" (Riach, 2009, p.358). Note taking during the interviews and the development of transcripts based on the recordings provided opportunities to explore these types of reflexive moments.

During the interview process I consciously felt my position as both an expert and a student, depending on the particular interview participant. In many cases, the participant was consciously aware of themselves also as both an expert and a learner. This was apparent in the language they used to describe their understanding of the topics, and the way they interacted with me in the process of shared knowledge development.

I developed reflexive practices in the preparation phase of the interviews, and during and after them. I needed to understand that as the researcher, I was also part of the exploration, and that this would need to be considered with respect to my behaviour with the participants and the interpretation of the data (Schwandt, 2007). Some of the considerations included: how my relationship with the participants impacted the research process (it ranged from knowing some individuals well, and some not at all); how the research participants perceived me as an expert in the field of information literacy teaching and critical information literacy, by way of this research; the interpretation of the data through which I could develop an understanding of the perspectives and knowledge that the participants brought to the interviews; and the reality of a process of shared knowledge creation with the participants. In some interviews, this shared creation of knowledge was overt. It was generated through question and answer and discussions of topics as they ranged beyond the interview schedules. In a small number of interviews, the process was more one of 'prompt and response', and less of a shared development experience. The transcription process also followed a reflexive process, where consideration and review of the language used, as opposed to notes related to my understanding of the participants' meaning, allowed for a response and adjustment to the questions and the resulting codes and thematic development of the data.

Reflexivity is also "both forwards and backwards looking" (Mann, 2016, p15) and the researcher must consider the fact that "even in a situation of being an observer one is an involved observer – someone who is being affected by and is affecting what is taking place" (Mann, 2016, p14). Thus, some considerations of which I needed to maintain awareness included: 1) How has the research changed me?; and 2) How have my beliefs had an impact on the research? (Mann, 2016). One final aspect of being a reflexive researcher, and directly related to the comments above, arose during the development of the *Conclusions* chapter. Reflecting upon my role not only as an insider, but also my position of power as an administrator, made it clear to

me that I represented the dominant privileged researcher role, potentially operating within an echo chamber with my own colleagues. BC academic librarians are predominantly Caucasian women, with little representation from the underprivileged or the significant cultural groups within our population. Participants did reference this elitist perspective, and many have attempted to engage with the concepts of social justice (particularly decolonial perspectives) to reduce the power imbalances within libraries. The ability to step outside the research process itself and to examine the nature of the individuals involved, however, required reflexive activity. Being able to internalise the comments that arose in the survey responses and interviews that attempted to point out this power and representation imbalance came to me somewhat late in my analysis process.

Insider/Outsider Position

Consideration of the researcher's insider versus outsider status, or 'researcher membership' within the research population of the study, is important to address. Qualitative research, and in particular the method used in this study, involve the need to clarify and consider the researcher's impact on the research. As Dwyer and Buckle (2009) clearly articulate, "the personhood of the researcher, including her or his membership status in relation to those participating in the research is an essential and ever-present aspect of the investigation" (2009, p.55). This refers to both the status of the researcher as part of the population under study, or from outside of that community.

Within my research, I am clearly an insider in this particular academic community; however, as an administrator and researcher, rather than a practising academic librarian, I could also be considered an outsider. To some participants I was a stranger, while to others, I was a professional colleague. As an insider to both academic librarianship and in the BC higher education context, the librarians felt comfortable using the metalanguage of our shared profession as well as the language of our particular regional higher education context. This meant that librarians did not define terms,

acronyms or phrases, except in the context of terms specific to their own institutions. At the same time, librarians seemed to see me as a neutral or supportive party with whom they were able to share information more freely than they would with someone from within their own institution, as I was not part of the culture or party to their internal discussions or decisions. Talking to a researcher from outside of their organization, some librarians were able to critique management concerns or express disagreements with the direction of policy or practices. Other insider benefits included knowing several of the librarians as colleagues and thus being able to probe more deeply or more specifically, based on a level of shared experience.

Throughout, I maintained an awareness that it was necessary to address the status of my own expertise in the context of the research. This directly arose in a number of ways in the interviews, such as when librarians expressed concern that they were answering the questions ‘correctly’, as in: “is that what you’re looking for?” or when they suggested I may know more about the topic than they did. This became an opportunity for me to clarify that I was learning with the librarians, and that from my perspective there were ‘no right answers’, only thoughts, impressions and the opportunity for shared knowledge development. Within the context of the interviews, my assurance that I was genuinely seeking their expertise seemed to allow the participants to feel free to explore their ideas with me, rather than try to identify a ‘right’ or ‘wrong’ answer.

Ethical implications

While insider or outsider implications of research are one aspect of ethical considerations, other ethical considerations within mixed methods research involve a range of responses, from ensuring that the research follows ethical standards related to human participants, to broader concepts related to what it means to be an ethical researcher. The Canadian Tri-Council on Research With Humans, a body of three Canadian governmental research funding organizations, states: “[r]espect for human dignity requires that research

involving humans be conducted in a manner that is sensitive to the inherent worth of all human beings and the respect and consideration that they are due” (Tri-Council, 2014, p.6). Ethical research with human participants involves consideration of the impact on participants, and the value of the research to participants. It also includes reflections on the purpose, methods, form and nature of the questions themselves, the selection of participants, and the sharing of information resulting from the research (Silverman, 2000).

The research I conducted drew upon the British Education Research Association (BERA) Ethical Guidelines for Education (BERA, 2011) and received approval for research with human participants through the University of Edinburgh’s Moray House School of Education. The research was conducted with adult participants, who self-selected to represent their institutions and to share their professional opinions. All participants were volunteers and no personal information was collected apart from information related to their professional credentials and expertise. No incentives were provided other than the ability to contribute to the research. Participants were required to submit an informed consent form prior to completing the survey, and a second consent form prior to the interviews. Before and after the interviews the participants were also reminded of their right to withdraw from the study at any point (BERA, 2011). Pseudonyms have been used within the Findings chapter to maintain the privacy of individuals, and anonymised data and generalisations based on institution type or geographic situation were used. The research data were collected and maintained in compliance with the University of Edinburgh requirements (BERA, 2011; Moray House School of Education, 2017).

One of the potential ethical concerns that I encountered while collecting the data was related to the information that some librarians shared regarding their perception of administrators’ or institutional internal policies or procedures. If this type of information were shared with the community at large it potentially could have a negative impact on an individual or their position. As such, anonymity was ensured through consideration of the

collection and use of the data to minimise the ability to identify an individual or a specific institution. These considerations included the selection of quotations, to the presentation of information related to participants. In addition, care was taken to ensure that only information that was relevant to this research has been used. If the data did not relate to the purpose of the research, nor help to answer the research questions, they are not reported in the findings.

Data Analysis: Quantitative Data

Documentary Analysis

Within this study, the quantitative data analysis involved the data set generated by the Council of Post Secondary Library Directors (CPSLD) – data which is freely available through the CPSLD website. This data set is generated each year through a self-reporting mechanism by individual institutions. The data include information related to the size of the financial, human resources and library collections, and they provide valuable data to compare libraries by size and type. For the purpose of this research, the data was analysed within Excel for the purpose of verifying the quantitative data reported by the survey respondents, with respect to the number of students, and to compare and contrast with the demographic data collected by participants in the survey, including the number of librarians within institutions. Given that almost all of the institutions in the province participated in the survey, there was very minimal verification of the data required through this process. Given that the CPSLD statistics are from a point in time (that is, they are collected annually) and are collected by a number of individuals representing their institutions, the information provided by the individuals within the survey over the CPSLD statistics, was preferred.

Survey Data Analysis

Analysing data from a survey instrument involves a number of recommended steps (Cresswell and Cresswell, 2018) For data analysis of both quantitative and qualitative data, an expanded set of considerations need to be

undertaken. The intention of the survey data analysis was to identify themes arising from the librarians, and to be able to compare and contrast the beliefs, awareness, and experiences related to critical information literacy teaching based on librarian experience (years of experience), tenure at an institution, type of institution represented, or geographic location. The analysis was also intended to initially provide themes for the subsequent interviews.

In addition, the demographic information allowed for additional analysis of the qualitative responses, when considering an individual's professional background and the mandate of a particular library. With the need to preserve privacy, a minimal amount of personal data was collected. These key pieces enable the interpretation of findings based on representation by institution type and geographic region, as well as librarian length of experience or tenure.

Other areas of interest for analysis of this data included ranking of set responses to closed-ended questions, and comparing against demographic data related to type of institution, geographic location, and amount of experience of the librarian. The Online Survey system BOS was able to generate analysis reports based on different demographic factors, such as responses based on institution type, location, or years of experience. In addition, the full data input was exported to Excel for data analysis. The export into Excel allowed for analysis using pivot tables to compare and contrast responses based on demographic data, and supported the analysis with the static reports generated by the BOS survey system. These quantitative survey data were also used to support analysis through NVIVO case coding. Details of the quantitative data are outlined in the *Findings* chapter.

Demographic data

The following table compares the kinds of demographic data gathered in the survey and interviews:

Instrument	Institutional data	Personal data
Survey	<ol style="list-style-type: none">1. Type2. Location (Urban, Non-urban)3. Number of librarians (FTE)4. Number of students (Institution FTE)	<ol style="list-style-type: none">1. Number of years as librarian2. Number of years teaching3. Percentage of time spent teaching4. Contact information if agreed to interview
Interview	<ol style="list-style-type: none">1. Type of Institution2. Region	<ol style="list-style-type: none">1. Gender2. Educational/ Academic background (degrees)3. Years of academic or teaching experience4. Years working at specific institution

Table 4.2: Demographic Data

Gathering a small amount of demographic data in the survey and validating or expanding that data within the interviews allows for comparison and contrasts between respondents across the data sets (Cohen, Manion and Morrison, 2011; Creswell, 2014). As described above, the quantitative data were analysed both through the BOS exported reports and with Excel spreadsheets and pivot tables, allowing for comparison and contrasts with the qualitative data and as reported in the *Findings*.

Data Analysis: Qualitative Data

Documentary Analysis

Creswell and Creswell (2018) “urge researchers to look at qualitative data analysis as a process that requires sequential steps to be followed, from the specific to the general, and involving multiple levels of analysis” (p.193). Following this recommendation, an iterative approach was taken with the data generated in the survey and in the interviews. Data were purposefully combined between the survey responses and the interviews to create a richer set of themes for analysis. In addition to qualitative data, quantitative data were also generated, primarily through the survey questionnaire. Those data were used to identify perspectives or attitudes based on institution type, geographic region or years of experience as a librarian, through comparison and contrast between responses.

The literature on documentary analysis describes a range of processes that allow the researcher to identify themes and meanings that underlie documentation (Silverman, 2000; Zhang and Wildemuth, 2009; Altheide and Johnson, 2011; Drisko and Maschi, 2015). For the purpose of this research, and as noted earlier, a deductive approach to content analysis was taken (Hsieh and Shannon, 2005; Elo et al., 2014; Graneheim, Lindgren and Lundman, 2017). This approach involved reviewing the 25 public higher education library websites for the presence of library policies related to information literacy teaching, with the specific intent of identifying whether policies actually exist. The analysis involved identifying each library’s website and generating a list of terms within a table in Word related to the language of information literacy teaching from the site. Where no language was used that related to information literacy teaching, that was also noted. The correlation between site and institution type was also identified and compared to, the survey and interview responses to the questions related to information literacy teaching policies.

For the ACRL *Framework for Information Literacy*, a review of both the Framework itself and the documentation related to the development of the *Framework*, including a specific search of the document for language related to 'critical information literacy' or simply the term 'critical' was undertaken. Since there is little reference to the term 'critical' within the *Framework*, this analysis was supplemented by the literature review that involved interpretations of the *Framework* as a support to librarians intending to apply critical information literacy to their information literacy practices. The outcomes of the documentary analysis were not combined with the survey and interview data in the chapters that follow, but instead contributed to the identification of the overarching themes of the research, the questions related to the *Framework* in the survey, and to the terms used and prompts provided to support the interview process. For example, in the documentation related to the development of the *Framework* (ACRL, 2015), specific concepts and language related to the theoretical underpinnings of the *Framework* were identified, including learning theories, pedagogical theories, and threshold concept theory. These, in turn were used as a list from which survey respondents could demonstrate an awareness of the underpinnings of the *Framework*, within the questionnaire. The *Findings* chapter includes insights drawn from the documentary analysis process.

Survey Data Coding

A thematic approach to qualitative data coding of the survey data was undertaken, and this approach is recognised as an effective process for the analysis of qualitative data (Braun and Clarke, 2006) and as a tool that can be used across a range of qualitative methods. The practice of theme development, however, is not well reported in the methods literature (Vaismoradi et al., 2016). Thematic analysis can take a number of forms, from exploratory to confirmatory and the decision about which approach to adopt depends on whether the researcher is attempting to identify phenomena and 'truths', or to confirm hypothesis or theory through the research. It requires interpretation by the researcher (Guest, MacQueen and

Namey, 2012). As Braun and Clarke (2006) argue, it is a beneficial approach in that thematic analysis may be used independent of theory development: “Through its theoretical freedom, thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data” (p.78). At the same time, this approach has also been criticised for its lack of methodological rigour. The thematic analysis approach outlined by Charmaz (2014) towards a grounded theory approach, offers a range of practices that contribute to theme development:

Grounded theory coding requires us to stop and ask analytic questions of the data we have gathered. These questions not only further our understanding of studied life but also help us direct subsequent data-gathering toward the analytic issue we are defining (Charmaz, 2014, p.109).

These practices, described by Charmaz, provided a foundation for the development of my qualitative data coding. While the approach I have taken is not to adopt a grounded theory approach, the processes outlined by Charmaz provided a framework for my process of thematic data analysis and coding.

Identification of Themes

Broad themes were initially generated during the process of developing the questions for the survey questionnaire and interviews to allow me to begin to find answers to the overarching research question and sub-questions (Johson and Onwuegbuzie, 2004; Schensul, 2012; Maxwell, 2013). These broad themes provided a starting point for coding that took place following the collection of survey data and informed by the documentary analysis. Initial coding of the data began with the qualitative responses within the survey, following Charmaz’s approach described above (2014). New and additional themes were then identified by reviewing the open-ended (qualitative) question responses from the completed survey questionnaires and creating codes using an *in vivo* process. This process involved reading

the responses to open-ended questions in the survey instrument and developing initial codes. An initial approach to coding involved using action terms (Charmaz, 2014), and terms were continually developed and refined during the process of reviewing all completed survey questionnaires. Themes were further refined by reviewing and refining the codes, both through the survey-generated codes and through the process of coding the interview data. Themes were ultimately generated through gathering similar codes under broad thematic terms.

The survey tool allowed for the generation of reports related to the controlled questions and demographic information. For the open-ended and qualitative responses, coding was initially conducted manually on a report generated from the BOS system which included the full questionnaire responses, and was later re-coded within the NVIVO system. NVIVO was selected because of the support it provides for the analysis of both qualitative and quantitative data, and for exploring and visualising data in different ways. I coded terms and phrases which were of interest in order to help identification and development of themes (an example of this process is provided in *Appendix 5: Research Nodes*, and I was able to determine quickly the most common significant terms, as shown in *Appendix 6: Word cloud*. All individual questionnaire responses were imported into NVIVO, as well as all of the individual interview transcripts. Over the course of several months, coding of the questionnaires and interviews was reviewed, added to, refined, and relationships between parent and child codes (overarching codes and sub-codes) were identified and developed. Codes were then extracted from NVIVO for analysis and further development. A broad classification of codes was finally created to surface overarching themes that emerged from the surveys and interviews. The list of the codes and themes that were refined from the data are identified below, in *Table 4.3*, *Table 4.4*, *Table 4.5*, and as generated originally in the NVIVO system as research nodes in *Appendix 5: Research Nodes*.

Interview Analysis: Codes and Coding

As described in the process of coding the qualitative survey data, the thematic analysis approach was extended into the analysis of the interview data. Coding was generated from the survey data and these codes were further developed with the incorporation of the data generated through the interviews. Codes were reviewed and revised following a process of action term coding (Charmaz, 2014). Themes were then developed from the codes generated through all of the research phases. As described by Vaismoradi et al. (2016), the coding of the qualitative data was cyclical as I reviewed initial data and generated codes, then reviewed data again and refined, revised or generated additional codes. This, therefore, was an ongoing, cyclical and iterative process.

During the process of transcription, comments and notes were made within individual transcripts, based on thoughts or questions that arose, and on the original coding generated from the surveys. In particular, my thoughts about the relationship between different interviews were noted as the interview process evolved. Following the completion of each interview, transcripts were generated, as noted earlier, and the transcripts were imported into NVIVO. Coding was completed initially for all interviews through reading and identifying thematic phrases within the text, and then applying codes that were developed during the survey process, or by generating new codes that arose from the unique interview data. Coding was refined on several occasions as the surveys and transcripts were reviewed repeatedly. Through the application of codes from earlier interviews into later interviews, codes were reviewed and modified. Ultimately, the existing set of codes was refined and linked to capture parent-child relationships or subordinate and superordinate terms (Cohen, Manion, Morrison, 2011), within the NVIVO system. This process of linking and collapsing codes led to the development of the overarching themes that arose from the data.

Outline of Identified Themes

Overarching themes were developed to structure the survey questionnaire and interview topic sets (see *Appendix 1*), and to inform the development of the individual questions. The original overarching themes for the survey questionnaire and the interviews are the following:

Theme 1	Challenges to library pedagogy in the academic environment
Theme 2	Understandings/perceptions of ‘critical information literacy’
Theme 3	Use of the new <i>ACRL Framework</i> and criticality in the <i>Framework</i>

Table 4.3: Overarching Themes

Through the process of the thematic data analysis of the surveys and interviews, and as shown as the originally generated codes as NVIVO research nodes in *Appendix 5*, the following codes were generated (see *Table 4.4*, below). These codes were developed initially by using participants’ terms, which I deemed to be significant by the nature and context of their use (Cresswell and Cresswell, 2018). These terms were then categorised by reviewing and refining codes, then identifying relationships between the codes, including higher order subject codes (Cohen, Manion, Morrison, 2011). The higher order concepts became the Primary Codes, while other related terms became Sub-codes under each broader concept term. The relationship between the Primary codes and Sub-codes shown in *Table 4.4* can be explained in the following example: the codes “*Teaching strategies for Critical IL*” and “*Examples of CIL in practice*”, were identified as related terms, and both were recorded as aspects of what was then identified as an overarching broader code, “*Applying social justice aspects of CIL*”. See also the many nodes related to relationships with faculty, as shown in *Appendix 5*. Through analysis these were refined into the Primary Code “*Relationships with teaching faculty*” and three Sub-codes: “*Teaching faculty*

perceptions of librarian IL role"; *Depending on faculty relationships*"; and *Creating relationships with faculty*". Some of the concepts identified as Primary Codes have Sub-codes, while a number do not.

The Primary Codes and the originally categorised Sub-codes from the survey and interview data are shown in Table 4.4, below:

Primary Code	Sub-code
<i>Expressing library values</i>	
<i>Describing teaching philosophy</i>	
<i>Librarian attitudes to teaching</i>	Reflective practice
	Relationship between reference and IL teaching
<i>Communicating the importance or value of IL teaching</i>	Understanding importance of information literacy
<i>Applying critical approaches to library services</i>	Taking a critical lens to practices
	Defining critical approaches to librarianship
	Different national perspectives on critical librarianship
	Indigenizing the library (De-colonising)
<i>Institutional learning outcomes</i>	
<i>Determining IL needs of students and faculty</i>	
<i>Involvement in curriculum development</i>	
<i>Organizing work</i>	
<i>Relationships with teaching faculty</i>	Teaching faculty perception of librarian IL role
	Depending on faculty relationships
	Creating relationships with faculty
<i>Creating relationships with students</i>	
<i>Importance of administrators</i>	
<i>Partnering with T&L or Writing Centre</i>	

<i>Describing the process of research</i>	
<i>IL teaching practice</i>	Evaluation or measures of success
	Relying on pedagogical knowledge or teaching background
	Differences in institutions impacting IL teaching practices
	Embedding information literacy
<i>Success factors</i>	Applying technology to achieve IL
	Improving library teaching
	Teaching specific skills
<i>New theoretical approaches</i>	Barriers to incorporating new theoretical approaches
	Applying new theoretical approaches
<i>Support for learning</i>	Conferences and listservs
<i>Learning about theories behind practices</i>	Learning about CIL
	Learning about pedagogy and teaching
<i>Defining CIL</i>	
<i>Applying CIL</i>	Teaching Strategies for Critical IL
	Applying Social Justice Aspects of CIL
<i>Changes to IL practices based on Framework</i>	Perceptions of <i>Framework</i>
	Impact of <i>Framework</i> on teaching
	Identifying challenges to applying <i>Framework</i>
	Support for applying <i>Framework</i>
<i>Developing IL policy</i>	Creating Provincial Guidelines
	Localizing IL frameworks
	Standardizing practices
<i>Sharing resources amongst libraries</i>	Importance of library peer support
<i>Notable quotations</i>	

Table 4.4: Thematic Codes Generated

The final themes were developed by reviewing the Primary Codes and Sub-codes, further analysing the codes and referencing the original statements to confirm the context (questionnaires and interview transcripts) to identify broader conceptual themes that represent the findings from all of the data that were generated. For example, the code “*Applying social justice aspects of CIL*” contributed to the identification of the broader theme “*Critical information literacy in practice*” shown in *Table 4.5*, below. In another example, the Primary Code “*Relationships with faculty*” contributed to the theme “*Collaboration and cooperation with peers and faculty*”, in *Table 4.5*.

These broader themes, identified in *Table 4.5* below, provide the structure for reporting on the data in the *Findings* chapter that follows:

Critical information literacy awareness
Critical information literacy in practice
Indigenization: De-colonising the library
Collaboration and cooperation with peers and faculty
Learning about pedagogical theory
Barriers to applying new theoretical approaches
Improving IL teaching
Evaluation and measures of success
Use of the ACRL <i>Framework</i>

Table 4.5: Themes Addressed in Findings

Conclusions

This chapter has provided an overview of the processes that were undertaken, and decisions made, in this mixed-methods research study. It explained how I considered and planned the research design to ensure that the research was conducted in an ethical manner. The responses to the risks to reliability, validity, and trustworthiness of the quantitative and qualitative data, and analysis and interpretations of that data, are intended to ensure that the research is replicable, and contributes to the scholarship of

librarianship. As the following chapter describes, the mixed-methods approach provided a rich set of data that offer insights into the experiences of librarians teaching critical information literacy in British Columbia higher education.

5. Findings: “*I think we do something like CIL, although we don’t call it that*”

This chapter reports on the findings from the compiled results of the survey, interviews, and documentary analysis. It is organised in a thematic structure to bring together the results from both data sets, and to identify themes that arose through the qualitative and quantitative data gathered. This particular approach was taken as the initial data results from the surveys contributed to the development of the interview questions; combining the data provides additional clarification and participant perspectives to the overarching research questions.

As described earlier, the questions underlying this research are:

How are librarians in BC higher education applying critical information literacy in their practice?

- a. How do academic librarians understand the term ‘critical information literacy’?
- b. How do academic librarians understand the role of critical information literacy in their instructional practices?
- c. How are librarians using the critical information literacy aspects of the *ACRL Framework* in their teaching?
 - i. What, if any, *Framework* concepts do they find the most challenging to understand and implement in practice?
- d. What challenges do academic librarians report?

The literature is referenced throughout the *Findings* chapter, identifying significant aspects of the findings that are in contrast or in support of the scholarship of library research and practices. As the *Literature Review* identifies, the context for this research is not well represented in the literature – by the fact that there is no research into the application of critical information literacy within an entire public system of higher education in Canada, and more specifically, within the province of British Columbia. The urgency for this research is also supported by the heightened awareness of

the need for critical thinking in western society, popularised by the fake news phenomenon of current political environments. These themes are addressed following the demographic information elicited within the research.

The first section presented in these findings reports on the demographic information collected in the surveys and, to smaller degree, in the interviews. Situating the findings within the demographic information is intended to provide a context both of the specific academic library and the representative participant involved in the research. Individual participants have been identified through the use of a pseudonym, as described in the methodology chapter. *Table 5.4*, later in this chapter, provides the details about the interview participants.

Following the demographic information, the chapter is organised around a thematic structure, introducing the major findings of this study. These key findings are presented as themes that are unexpected related to the current library literature, or as significant themes identified by the research participants, themselves. Following the key findings, other themes that arose in the research are presented, with the relationship between the findings and the literature discussed in context of the findings. Areas for further exploration that are addressed in the later *Conclusions* chapter are noted throughout the *Findings*.

Demographic Information

Demographic information provides a context as well as the background for the comparison and contrasts between respondents. This information is referenced throughout the findings to underline when institution type or geographic region has significance to the gathered responses.

Overall, 24 librarians responded to the survey, representing 22 of the 25 public academic libraries. This equates to 88% of the public higher education institutions in BC who participated in the survey (see *Table 5.1*, below). Of

those participants, 13 librarians agreed to participate in follow-up interviews. Within both the both the survey and the interview phases of this research, participants included representatives from all public higher education institution types.

The following table (*Table 5.1*) describes the types of libraries that participated in the research. Out of a total of 24 public institution respondents, all institution types were represented, with overrepresentation of the category of Research University (seven from five institutions), and slight under representation in all of the other categories.

Type	Total Number in BC	Survey			Interviews	
		Responses	Percentage of institution type represented	Percent (Non-duplicated)	Number	Percentage of total type of institution
College	11	10	91%	91	7	64%
Institute	3	2	67%	67	1	33%
Regional/ Teaching University	6	5	83%	83	3	50%
Research University	5	7	140%	100	2	40%
Total institutions	25	24	96%	88	13	52%
Urban	14	(2 dup.)				
Suburban/Rural	10					
Total	24	(22 of 25)	or 88% of institutions			

Table 5.1: Participating Institutions

The survey asked respondents questions related to the type of institution they represented, its geographic region, the librarian's academic library experience, and their teaching experience (regardless of context). The interviews gathered information related to the participant's tenure within the specific institution and confirmed their years of experience as an academic

librarian (see *Tables 5.2 and 5.3*). Other information was gathered with respect to the number of students served by the institution, which provides an indicator as to the number of students supported by the teaching practices related in this research, for the province of BC.

As the research was intended to elicit information from librarians who were responsible for library pedagogy, each participant's professional responsibility regarding teaching practices at their institution was important to identify. Sixteen of the 24 respondents (66.7%) indicated they were solely responsible for their library's pedagogical practices, while 3 (12.5%) were not. For the five (20.8%) remaining survey participants, the responses provided further details or reflected particular approaches to teaching responsibilities, based on the mandate or structure of their libraries. These other responses included the following categories: 1) Liaison teaching model (n=2) "Each librarian is responsible for developing their teaching practices/materials"; 2) teaching as a team or teaching as a shared responsibility (n=3): "I manage a team of librarians and paraprofessionals who provide information literacy teaching"; "I oversee a team of librarians who teach information literacy, and in that sense, I am a part of the process. I discuss pedagogical practices with them and, for the new librarians, guide them if needed". While roles differed slightly between institutions, with only one exception, the librarians who participated were able to speak on behalf of their institution regarding IL teaching practices and as a librarian who actively teaches information literacy.

The overall responses indicated that 21 of the survey respondents (87.5%) were confidently able to describe and discuss the teaching principles and practices at their library, either as the single lead or in a shared leadership role.

Table 5.2 describes the length of tenure and location of librarians who participated in the survey. What is interesting to note is the range of expertise and tenure by participants, across all institution types. The amount

of time librarians spent teaching was not consistent with length of tenure, years of teaching or institution type.

Location	Length of tenure	Years teaching	Percentage of time spent teaching
College	0-5 years	0-5	20
College	0-5 years	0-5	50
College	6-10 years	16-20	30
College	11-15 years	11-15	60
College	16-20 years	6-10	5
College	16-20 years	11-15	4
College	21-25 years	16-20	0
College	21-25 years	21-25	50
College	26-30 years	26-30	20
College	26-30 years	26-30	75
Institute	11-15 years	11-15	50
Institute	31+ years	31+	20
Regional / Teaching University	0-5 years	0-5	20
Regional / Teaching University	0-5 years	0-5	30
Regional / Teaching University	11-15 years	11-15	50
Regional / Teaching University	21-25 years	21-25	25
Regional / Teaching University	31+ years	16-20	65
Research University	0-5 years	0-5	30
Research University	0-5 years	0-5	75
Research University	11-15 years	11-15	15
Research University	11-15 years	11-15	25
Research University	11-15 years	6-10	1
Research University	16-20 years	16-20	0
Research University	21-25 years	16-20	20

Table 5.2: Librarian Demographics

Table 5.3 reports the participation and relative size of the institutions, based on total and number of librarians and students at each institution. It illustrates the reach of each of the teaching libraries across the student body population in the province:

Institute Type	Geographic Region	Number by region	Total FTE* Librarians	Average FTE Librarians	Number of students
Colleges	Non-urban	6	21	3.5	19,813
	Urban	4	34	8.5	30,937
Institutes	Urban	2	14	7	14,500
Teaching Universities	Non-urban	1	8	8	6,514
	Urban	4	35	9	35,369
Research Universities	Non-urban	3	60	20	31,757
	Urban	4	64	16	71463
Total		24	236	10*	210,353

Table 5.3: Comparison of Institutions

***Number of librarian FTE rounded to nearest whole number**

Including the two pilot interviews, interviews were conducted with 10 women and four men, who had an average of 12.5 years of experience as academic librarians. This average, however, does not convey the more important result that the participant librarians actually had a significant range in years of work and expertise, from one year to 32 years of service.

The following table (*Table 5.4*) provides the detail of the interview participants with the pseudonym assigned to each. The pseudonym is used to reference the interview participant comments within this paper. The table shows the distribution of interview participants by institution type and region,

and the diversity of participant professional experience, from one year to 32 years.

Interview participant	Institution Type	Region	Gender	Years of Experience	Pseudonym
Pilot Participant 1	Private	Non-urban	Male	30	Dario
Pilot Participant 2	College	Non-urban	Female	20	Deanna
Research Participant 1	Teaching University	Urban	Male	11	Simon
Research Participant 2	Teaching University	Urban	Female	1	Wanda
Research Participant 3	Research University	Non-urban	Female	3.5	Katharine
Research Participant 4	College	Urban	Female	3.5	Hailey
Research Participant 5	Teaching University	Non-urban	Female	23	Monica
Research Participant 6	College	Non-urban	Male	12	Dennis
Research Participant 7	College	Non-urban	Female	16	Rose
Research Participant 8	College	Non-urban	Male	9	Martin
Research Participant 9	College	Urban	Female	5	Lydia
Research Participant 10	Research University	Urban	Female	16	Nicola
Research Participant 11	Institution	Urban	Female	11	Jessica
Research Participant 12	College	Non-urban	Female	32	Talya

Table 5.4: Interview Participants

Key Findings

This section presents the significant findings from the research, organised under overarching themes of critical information literacy awareness; critical information literacy in practice; de-colonising the library; collaboration and cooperation; learning about pedagogical theory; barriers to applying new theoretical approaches; and other notable themes. What is revealed in these findings is that librarians in British Columbia are aware of critical information literacy and do strive to incorporate criticality, to some degree, in their practices. While the literature discusses many aspects of critical information literacy, one specific focus in the BC higher education environment, related to social justice, was to raise awareness of the concepts of authority and power related to information as part of the efforts to decolonise the Library. At the same time, some resistance to applying a critical lens was also surfaced. A number of other findings are further reported following these most significant themes.

When providing extracts from the participants' interviews, I chose to remove the 'filler' words, that might distract from the flow of the text. I found these forms of speech to be useful in helping to identify hesitations and lack of confidence during the coding, analysis and reporting phases, and I felt that it was important to ensure clarity and to capture the meaning and nuances within and across participants' accounts (Skukauskaite, 2012). Had I removed the filler words during the initial transcription process I would have needed to return to the recordings repeatedly to understand when a participant indicated hesitation or lack of confidence in a response or statement. For the purpose of reporting the meaning more effectively, I have removed the filler language in both the *Findings* and *Conclusions* chapters.

Critical Information Literacy Awareness

The perception that there are minimal theoretical underpinnings to library practice is prevalent in the library literature, and the view that librarians have

a limited grasp of criticality with respect to their pedagogical practices is frequently reported (Radomski, 2000; Bruce and Candy, 2015; Downey 2016). At the same time, library scholars and professional associations, such as ACRL, have encouraged librarians to apply critical pedagogy and critical literacy theories within their practice as “critical information literacy” (Accardi, Drabinski and Kumbier, 2010; Swanson and Jagman, 2015; ACRL, 2015; Tewell, 2018). Based on the academic literature on library practices, however, the term ‘critical information literacy’ remains a concept in development and contested.

As noted earlier, there is little current research on librarians’ understanding of the concept of critical information literacy (CIL); however, a recent survey on librarians’ familiarity with critical theory determined that “[r]oughly two-thirds of the respondents reported that they had some understanding of a critical theory” (Schroeder and Hollister, 2014, p.99). In comparison, the majority of participants in my study expressed an awareness of the concept of CIL. Furthermore, librarians in BC public higher education identified both a conceptual understanding of CIL and its potential to impact library information literacy teaching, even though the participants were not able to articulate clearly its practical application. While participant librarians demonstrated an awareness of critical information literacy, only 58% (n=14) agreed or strongly agreed that they understood the concept, while 25% (n=6) felt that they did not understand the concept. When combining the responses of those who agreed with those who were undecided (n=4), it is clear that a large percentage of participants had been exposed to the concept, but at the same time, 87.5% (n=21) felt the need to better understand CIL.

With respect to which aspects of critical information literacy the librarians perceived a need to understand better, the majority (13 of 17 who responded to the question) stated that they needed to learn how to apply CIL in practice. The application of CIL included potential to do so both in their teaching and reference practices. Some examples from the comments included: “applying

it in a meaningful way”; “we could be more intentional and consistent about our application of CIL theory”; and to “apply it effectively” (survey responses).

Most of the respondents indicated that they were able to spend time learning about new theories of pedagogy and IL teaching (n=17). Half of the librarians surveyed reported being able to do so *occasionally* (n=12), with a minority able to do so *frequently* (n=5). A significant number, however, reported that they are *rarely* able to learn about new theories (n=6) or *never* (n=1), from the total of 24 responses.

One of my expectations from the questions related to critical information literacy, and given the current Canadian context, was that I would be able to identify comments related to de-colonising the library, commonly termed “indigenization”. Interestingly, in the survey responses there were only two comments related to social justice themes, specifically, “indigenization” and “gendered research”. In the interviews, however, the topic of indigenization arose with some frequency in the context of librarians taking a critical lens to their overall library practices.

In many cases, and as the comments below demonstrate, librarians in my study used language that indicated a level of hesitancy in confirming their application of a ‘critical’ information literacy in their practices. For example, one survey participant described a singular aspect of critical information literacy in their practice: “I think we do something like CIL, although we don’t call it that, but getting students to critique information and understand that there is more than one opinion/side/story/narrative, that there is more than one lens to be put on a topic” (survey respondent - research university librarian). This example is illustrative of how librarians in this study frequently expressed awareness of critical aspects of information literacy, but did not readily access the current terminology of information literacy theory or practices within higher education. Current definitions of CIL frequently include the understanding of power imbalances, and the acknowledgement that the library practices themselves are not neutral.

Librarians also described how they were engaging with the library literature to improve the application of theory into practice. Jessica, a mid-career librarian from an institute, described her perspective on applying CIL in practice by describing the process as:

...taking a broader perspective rather than just focusing on...citing your sources and evaluating your sources, and...that kind of thing...and some of the reading I did was just talking about the social aspects, the political aspects...just being more aware that there's more than...putting little check marks in a box that "yes, I've done my references" and "yes, I've evaluated my sources" (Jessica).

As described by Jessica, librarians reported being interested in furthering their understanding of current developments in information literacy teaching and how they were attempting to apply some of these developments in their practices.

While not all survey respondents were comfortable identifying a definition for critical information literacy, when the concept of critical information literacy was further probed in the interviews, all of the librarians were able to provide a definition for 'critical information literacy'. These definitions ranged from a focus simply on critical thinking concepts, to broader social justice aspects. Talya, a librarian with 32 years of experience in academic libraries, defined CIL as a focus on critical evaluation of information: "being able to locate those...information pieces that...you need, then to be able to take those pieces and pull them all together...demand some critical thinking or some...evaluative thinking". Hailey, a librarian at the beginning of her career, expressed CIL as a form of questioning: "I think to me critical information literacy is...all about scepticism...and...to question, not only the information that you find but to question the structures that created that information in the first place" (Hailey). Hailey's definition seems to reference the social justice

aspects of CIL which have been more explicitly addressed in the information literacy literature in recent years.

Other librarians showed confidence in their ability to define the application of criticality in the context of their teaching practice. Martin, an early-career librarian stated, “I would say just a good grounding of being able to evaluate any sort of information source for its degrees of objectivity, what biases might be there, the quality of the information presented.” Language related to critiquing information for bias appeared within the survey and interview responses in my study.

One of the pilot interview participants, Dario, outlined a more detailed approach to his teaching through the application of the ACRL *Framework*, and which correlates with some of the expectations of critical information literacy teaching as defined earlier by Elmborg (2006):

I help students to see how, things like... ‘Information creation is a process’ points to the kind of work that people do in order to generate the information that they have, and the fact that if we interact with multiple points of view and actually give them their due we have a much better chance of having a critical understanding the whole issue. It’s based on more than just...we bought into one person’s approach (Dario).

This particular ACRL Frame referenced by Dario, *Information Creation as a Process*, describes the way that information developed and disseminated may evolve over time and context, and its purpose may be different depending on its context (ACRL 2015). This example provided by Dario emphasised his internalising of the particular frame and how he situated it in his information literacy teaching practice. Dario explicitly articulated the outcome of teaching that Frame through the knowledge practices defined within the *Framework*.

Critical Information Literacy Defined in the Literature

While librarians in my study were able to identify aspects of CIL and show an understanding of applying criticality in their information literacy practice, few were able to explicitly define the multiple aspects of critical information literacy as identified in the literature. The descriptions of practice they provided, however, do reflect what Downey (2016) and Accardi, Drabinski and Kumbier (2010) described as the initiation of a critical information literacy approach. This approach is the application of theory and practice that “promotes a critical engagement with information sources, considers students collaborators in knowledge production practices...recognises the affective dimensions of research, and (in some cases) has liberatory aims” (Accardi, Drabinski and Kumbier, 2010, p.xiii). It is clear that the participants in this research are applying some critical aspects to their practice, particularly in the evaluative aspects of information. Reference to the ACRL *Framework* demonstrate that librarians have sought to introduce some level of critical approaches to information literacy practices by applying particular frames from the *Framework*.

In the past decade, critical information literacy has moved from being defined as: "...developing a critical consciousness about information, learning to ask questions about the library's (and the academy's) role in structuring and presenting a single, knowable reality" (Elmborg, 2006, p.198) to more explicitly addressing social justice implications for library teaching: "...an approach to education in library settings that strives to recognise education's potential for social change and empower learners to identify and act upon oppressive power structures" (Elmborg, 2018, p.11). Comparing definitions offered by my participants with those published in the literature, my participants were able to identify specifically the critical reflective practices of assessing information and its sources, as they sought to define CIL in their own terms, but there was little reference to the potential for CIL to “empower learners to identify and act upon oppressive power structures” (Tewell, 2018, p.11). Their focus on critiquing the information for bias, for example, is directly linked to the language used by other CIL scholars, such as Downey

(2016), who described how CIL “urge[s] students to approach all information, regardless of the type or source, with a critical eye and to be reflective of their role as information consumers and producers” (p.18).

Based on current developments in library pedagogy and as expressed by participants, CIL can be defined in this research context as **information literacy teaching that addresses critical consideration of information, its source and authority, and the implications of library teaching, regardless of context, for developing social justice awareness, including the power structures inherent in information production and use.**

Critical Information Literacy in Practice

Critical information literacy, as defined by the research participants, included supporting students to be more effective researchers and scholars. In many cases, and as the comments below demonstrate, librarians used language that indicated a level of hesitancy in confirming their application of a ‘critical’ information literacy’ in their practices. Some participants were able to reference the current discussions that are taking place in the literature, in which librarians have been undertaking to critically evaluate their own practices. In the following quotation, one of the librarians referenced the #critlib twitter discussion, which offers a forum for librarians to discuss critical practices in librarianship. While not solely focussed on critical information literacy, it was identified as a source that has exposed librarians to thinking about library practices more critically.

I’ve been thinking about ... my #critlib colleagues who talk about everything from LBGTQ identity to... questioning neoliberalism in the academic institution...[T]hat’s another form of this...critical information literacy world (Simon)

As Simon identified, the political and hegemonic critiques of library practices are expressed in library discussion forums, and have engaged him in

thinking about his teaching practices. Interestingly, for other librarians in this research, these discussions have had limited impact on their information literacy teaching development, or at least were not reported to have been an influence on their practices.

Other references seemed to locate critical information literacy in the realm of critical pedagogy, and reflexive teaching practices, as described by these librarians:

I think that critical information literacy piece is not even what I'm teaching them but thinking about them as rounded people with other experiences that have nothing to do with me being in that classroom that day (Katharine).

[F]or me, as a practical sort of person, it comes down to critically assessing what you're doing, looking at it through a variety of lenses, um, which could include, you know, gender, labour, socioeconomic, all the different kinds of lenses, looking at accessibility and equity have to come in there (Nicola).

As examples, these quotations show the interest that librarians expressed in critical information literacy. These ways of looking critically at both teaching practices and what librarians are teaching are clear evidence of a critical mindset amongst teaching librarians.

Beyond the general hesitancy to call themselves experts in applying critical information literacy, librarians described the application of critical information literacy in their teaching practices. Participants described how they focussed on different aspects of information evaluation; the information creation process; or by encouraging a critical approach to understanding information sources and their associated biases. From an indigenization perspective, Deanna, a librarian with long tenure and teaching experience at a rural

college, provided this example of applying a critical approach to information literacy teaching:

I'll use residential schools as my example, making sure they're looking at bias, making sure they're looking at...geography...making sure they're treating a subject in a respectful manner, and that the resources they're choosing are also showing those same levels of respect (Deanna).

While Deanna talks about respecting the nature of the information and being sensitive to the topic, in contrast, other social justice approaches were described by two of the early-career librarians. Wanda (with one year of professional experience), addressed feminist pedagogy while Katharine (in her fourth year of experience) identified examples related to the concept of authority:

I'm interested in applying feminist pedagogy to instruction and including...women and...non-male perspectives...in showing how to do research. You can use different examples instead of always falling to...searching for a male name, or something like that...and...trying to empower students to feel...they can be participants in the scholarly conversation... (Wanda).

I use the Black Lives Matter a lot...or the Dakota pipeline stuff. Where it's...the stuff that's on the ground, like Twitter feeds and things like that, can be an authoritative source depending what you're looking at. And you may be getting different perspectives that way rather than what's being shown in the news or what's being published in the scholarly... the traditional scholarly contexts (Katharine).

Both Wanda and Katherine linked their information literacy teaching to a critical information literacy focus on power and authority. What is further revealed through these statements, is that a significant sample of librarians

in BC higher education do seem to be integrating (or aspiring to integrate) aspects of critical pedagogy and critical perspectives into their library practices. The librarians who participated in the research indicated a growing awareness of ways to begin applying CIL in practice, and this was particularly evident amongst the newer graduate librarians.

What is also interesting is the contrast in understanding and application of critical information across the BC higher education environment, with a number of librarians expressing reservations about the concept itself, and its application, given their particular student body or IL teaching practices. For example, Hailey, an early-career librarian spoke of her expectations regarding the students' abilities to be critical:

I think that's very...high level. I would not expect one of my first-year students to be able to ask all of those questions, but to me that's what critical information...literacy...is. It's being sceptical of everything and asking questions about everything (Hailey).

While Hailey stated that she did not expect her students to be capable of taking a critical approach, she nonetheless identified a way of addressing this limited student experience of bringing criticality to their research practices, by incorporating aspects of The *Framework's Authority is Constructed* frame. This particular frame explains that "[i]nformation resources reflect their creators' expertise and credibility" (ACRL, 2015, p.4) and that context is dependent upon use. It also brings to the forefront the idea of authority and how authority of ideas is generated within communities, and will differ depending on the community and the context. As one of the frames that most explicitly incorporates most specifically aspects of critical information literacy, it was the frame that resonated most clearly with the early career librarians within this research.

In other responses, some librarians felt that CIL is a concept that does not have practical application in their teaching or academic environment: "I think

of it as more of an aspirational thing than a practical one...in my environment” (Nicola). This sentiment is significant in the barrier that is revealed to information literacy teaching in certain higher education contexts. Whether this is a barrier due to lack of connection that the library has made with vocational programs or lack of engagement by librarians with critical librarianship, would be worth pursuing in separate research.

And finally, a minority indicated a disconnect between the concept of information literacy, and a ‘critical’ information literacy: “The term doesn’t meaningfully speak to my theoretical and practical experience with the concept of IL” (survey participant). What those experiences may have been were not described, however, this sentiment is consistent with the literature which describes librarianship as not traditionally a profession that has reflected critically upon its practices (Ryan and Sloniowski, 2013; Downey, 2016; Gregory and Higgins, 2017). It is interesting to note, however, that it was a small minority of the librarians within this research who expressed the lack of engagement with some form of critical perspective of information literacy.

Overall, librarians reported awareness of the term ‘critical information literacy’, and in many cases, provided information about attempts they have made to apply critical information literacy in practice. There was a perception, however, that first year students may not be prepared or effectively engaged enough to be able to apply principles of critical thinking and analysis in their research practices. The other perception was that students in particular programmes (such as vocational programmes) may not require critical information literacy teaching. These perceptions directly contradict the current library discourse that expresses significant urgency with which libraries should address the ‘fake news’ phenomenon, and with it the need to develop more critical approaches to teaching information literacy.

Perspectives on the implications of using a social justice lens to enable critical information literacy teaching were revealed in the interviews as

another significant theme related to critical information literacy. These are shared in the following section. Implications for opportunities to develop a stronger understanding and application of critical information literacy in teaching practices are further discussed in the *Conclusions* chapter.

Indigenization: De-colonising the Library

Application of critical information literacy, beyond IL teaching, was also revealed in librarians' reflections on their need to take a more critical approach to library practices, generally. While other examples, such as feminist pedagogy or queer pedagogy arose as examples, what emerged most frequently was reference to the concept of 'indigenization', as an aspect of de-colonisation in the Canadian academic context. Decolonising the academy has become a focus of higher education in Canada in recent years, particularly since the 2015 publication of the Canadian Truth and Reconciliation Commission *Calls to Action*. This report encourages Canadians to implement responses to the 94 *Calls to Action* for individuals and institutions to address the impact of colonialism on the indigenous peoples in Canada (TRC, 2015).

Just as the *Calls to Action* asks Canadians to change their behaviour and take action to respond to injustices, the implications of taking a critical approach to IL teaching and other practices requires a change in understanding and behaviour (Elmborg, 2006; Jacobs, 2008; Downey, 2016). In this vein, some librarians felt that critiquing library practices, such as through the work of indigenizing their academic environment, had already transformed their practices:

Maybe we've been doing it all along just because of our subject areas? It's just what we do anyhow...but definitely the library's been involved with the indigenization of the curriculum, and...supporting faculty and students...in that regard (Jessica).

Deanna echoed this sentiment by stating "...we're really focussed on decolonising the institution. Our Dean talks a lot about that and it's really in conversation in the institution...so kind of bringing a de-colonial...lens to library instruction" (Deanna). Others had yet to implement changes but were anticipating how these different perspectives would change their practices: "I think the indigenization would help us in general to bring that critical focus to everything" (Martin). Somewhat pragmatically, Rose expressed it as a natural progression for all institutions: "I think it's just part of what's going on in the country, and as academic institutions we're responding to it".

And finally, the perception of how critical approaches to library practices, overall, were expected to bring significant change to the academic library arose, such as:

People are talking more about gender and indigenizing...institutions and those kinds of conversations. It brings, kind of a more critical lens to what we're doing and we have to rethink and restructure everything in order to honour those perspectives (Wanda).

The expectation that taking a critical approach to library practices is a natural progression in BC higher education was clearly expressed by librarians throughout this research. It is also clear in these findings that there was significant energy related to identifying ways to improve library practices by applying a social justice lens.

In the academic literature related to CIL, there are a number of discussion threads focussing on social justice and library practices involving gender, socio-economic and other factors (Swanson, 2015; Downey, 2016). What is particularly interesting to note in the results of this study is that while librarians made some reference to applying a critical lens to their pedagogy, it was the specific sensitivity to indigenization, and a questioning of library practices related to indigenization in particular, that emerged as the most prevalent focus of the librarians' critical reflections. This may be due to the

limited discussions being held in BC academic libraries regarding social justice more broadly, or simply due to the current focus on indigenizing the academy. Hailey describes this focus in her perspective on de-colonisation of library practices:

In terms of...me personally, I think a lot of it is...developing awareness and I'm still trying to do a lot of my own sort of reading and...personal growth work to figure out what it means to be...a coloniser, to be a teacher and to...be in a world where information is presented in a very western way...and...how we can broaden how we feel and how we think about things like authority...in a space where... authority has been granted by these structures (Hailey).

Social Justice in the Literature

Hailey's comments are consistent with the literature in which a focus on gender, socio-economic and other factors have emerged in discussion of critical information literacy (Downey, 2016; Swanson, 2015). These types of discussions have been evolving during the 21st century until there is a significant body of work related to social justice and librarianship in the academic library environment. It is interesting to note, however, that these were referenced only minimally within the context of this research.

While a majority of librarians in my study (n=15) referenced applying a critical lens to their pedagogy, there is clearly a gap between these findings and the literature that encourages libraries to critique their practices based on social justice implications. Within the context of this study, it is the sensitivity and a questioning of library practices to incorporate indigenization which has arisen as the primary focus of the librarians' critical reflections.

Collaboration and Cooperation with Peers and Faculty

One of the most prominent themes that emerged from the survey and interviews is that of the relationship between the librarians and the discipline (teaching) faculty. In general, relationships, both with library peers and

teaching faculty, were identified as the most important factors in librarians' perception of 'success' in their information literacy pedagogy. Sharing new practices and successes or failures with library peers, both within and across institutions, was identified as valuable to support IL developments.

In all but two of the survey responses (22 of 24), librarians reported that faculty were generally supportive of information literacy teaching. Librarians at the research universities reported most strongly the level of faculty support to incorporate IL teaching into their courses. What was revealed in the interviews, however, was that librarians from smaller institutions felt they had an advantage of being able to develop closer relationships with their discipline faculty than did the larger institution librarians. When compared to the overall survey results, however, there is little evidence that institution sizes, type, or geographic situation, generates an advantage in creating effective relationships with teaching faculty. Regardless of whether librarians at smaller or larger institutions are able to develop the most supportive relationships, what is most clearly defined by the findings is the necessity for strong relationships between librarians and teaching faculty. These relationships have an impact not only on the ability of librarians to participate in teaching of IL across disciplines, but also the ability to assess and understand the success of their IL teaching.

While most librarians responded that they felt faculty were generally supportive, librarians also reported faculty relationships ranging from lack of interest in collaborating to fully engaged peer partnerships resulting in shared curriculum development and teaching. Some participants referred to their ability to work with faculty on incorporating IL teaching into their curriculum or course outcomes. Such collaborative practices included the ability to participate in developing and assessing IL modules within courses: "I can say that we create the materials and we teach those components of it...so we create them, we teach them, we grade them...and then they are a component of the grade" (Deanna); to participating in developing assignments related to library research:

I'm occasionally asked to contribute to the development of an assignment or...an entire course and this might be things like finding readings or...word-smithing the assignment or sometimes they'll give me an outcome and say 'could you find a library activity that corresponds with this?', and those are great because I'm involved right at the outset...and those are my favourite things (Nicola).

Librarians generally identified these high levels of collaboration and cooperation between faculty and librarians, including embedded teaching opportunities, as the ideal for higher education information literacy teaching. Librarian interest in engaging in strong teaching relationships with faculty was universal among the research participants, and is reflected in the scholarship of higher education librarianship.

Librarians frequently described success in IL teaching hinging on the engagement of the discipline faculty, and with the librarian's participation in the development of the assignment associated with the class:

So, the best case scenario: I'm on the syllabus, the class is booked ahead of time, the faculty member is super involved, it's related to a real assignment, and that's where you get students who have retention of...what you're saying. They can then use it in a real assignment, they get the practice aspect to it...That's the most successful kind of faculty engagement that we have (Nicola).

Librarians reported this type of situation as the 'ideal' rather than as the standard or norm within information literacy teaching in BC higher education. Furthermore, the recognition that more than one session may be necessary to support students to develop their research abilities was noted:

And the instructors are very involved...and they've asked if they can have a follow-up with us...another hour and a half, and then we work

together and the instructor might have to explain the assignment but then I will also be there to help with them...just determining and evaluating information (Rose).

Again and again, participants returned to descriptions of the significance of engaged teaching faculty, the impacts of this engagement on IL teaching, and the time commitment required to address information literacy within the curriculum. A general frustration of not having sufficient access to students was reflected across all institutions within the research, and potential actions to address these concerns are addressed in the following chapter.

The Literature Related to Collaboration

What the literature has shown is that librarians who have close relationships with faculty are better able to engage in IL teaching practices in an effective manner (Drewes and Hoffman, 2010; Hooper and Scharf, 2017). While research participants talked about being supported by the teaching faculty to enable information literacy teaching, further probing noted challenges to incorporating new teaching approaches or access to students in disciplines outside of the humanities and social sciences, and particularly in the sciences or vocational programs.

Learning About Pedagogical Theory

One surprising result in this research is the revelation that BC librarians report limited access to a shared curriculum development approach to IL teaching. What may have been considered to be discrete library activities in the past are now clearly interconnected through shared pedagogy, with implications for library teaching practices and the discipline curricula. Specifically, library pedagogy goes beyond classroom teaching to include research supports outside of the formal classroom setting, and documentation or guides that support self-directed learning. Higher education librarians within the BC context expressed an understanding of the perceived interrelation between the work conducted within information literacy sessions and the further 'teaching' that occurs through reference

transactions, the creation of guides and pedagogical support materials, and other less formal teaching activities that take place in the academic library setting. In fact, given that few BC academic libraries had been able to achieve any significant level of embedded IL teaching, the interactions and relationships developed with students outside of the formal classroom setting were recognised as being crucial to the success of their library pedagogy.

Librarians in this research indicated an understanding of these interrelationships between pedagogical activities, but they expressed a sense that they had limited time or ability to identify and learn about theories that underpin their practices. While 87.5% (21 of 24) of the librarians surveyed indicated a strong interest in learning about theoretical underpinnings of CIL, only 70.8% (17 of 24) of librarians reported being able to spend time learning about new theories or theoretical approaches for their information literacy teaching.

It may be assumed that larger institutions are able to provide librarians with more time or allocate additional resources for professional development in the area of pedagogy or library theory development. The data, however, revealed otherwise. Surprisingly, of the 24 responses to the survey question related to their ability to spend time on learning about theory, it was only librarians at urban institutions who reported they were *rarely* or *never* able to spend time learning about new teaching theories (seven of 14 urban librarians). Suburban or rural librarians reported having a greater ability, or felt that they were better able to spend time, to learn about new teaching theories than their counterparts in urban institutions, regardless of size or type. All of the suburban/rural institutions (10 of the 10 suburban/rural librarians) responded that they were *frequently* (n=4) or *occasionally* (n=6) able to spend time on professional development activities related to theory. Further research would be interesting to determine if there will be change over time, particularly with the current establishment of teaching and learning centres across BC higher education institutions to support pedagogical development.

Library Pedagogy in the Literature

The literature talks about a need for librarians to more explicitly understand and apply pedagogical theory to library practices. While information literacy teaching is the primary focus of discussions, all library practices are informed by developments in pedagogical theory. Elmborg (2006) has been frequently referenced because he argues that research should seek to identify the theoretical underpinnings of the work of librarianship: “Building on the foundation of the process models and other relevant learning theory, critical literacy represents the next evolutionary stage in the development of a theory of educational librarianship” (Elmborg, 2006, p.194). Elmborg, Jacobs, Downey, Swanson, and other authors have further developed the argument that librarians need to consider the interrelationship between all of our educational activities for understanding and developing our practices:

When librarians talk about pedagogy, we frequently conflate it with information literacy sessions. Indeed, pedagogy and information literacy sessions are inextricably linked. However, I would like to argue that in order to work toward the theoretically informed praxis Elmborg describes, we need to broaden our definition of pedagogy beyond the teaching of information literacy sessions and think critically about how we describe our pedagogical work (Jacobs, 2008, p.256).

The findings in the current research align with those in the published literature related to librarians’ awareness of and interest in developing a better understanding of pedagogy.

Time and Resistance: Barriers to Applying New Theoretical Approaches

Beyond the ability to engage in scholarship or professional development related to new pedagogical theories, almost three-quarters of librarians (n=17) reported encountering barriers to applying new theoretical approaches. A number of consistent responses were gathered related to these barriers. A majority identified a lack of time or capacity (65% of those

who responded or n=11), while, notably, more than half of librarians responded that teaching faculty resistance was a critical barrier to librarians' ability to implement new theoretical approaches in their teaching practice. It is also interesting to note that a full quarter of librarians (n=6) also pointed to librarian resistance or lack of interest by their librarian colleagues, as another barrier. Furthermore, a relationship was revealed between librarians' struggles to learn about new learning and teaching theories, and their limited ability to engage with the *ACRL Framework* (which itself is based on threshold concepts and other learning theories), and as supported by research into *ACRL Framework* application.

The following table (*Table 5.5*) describes the three specific barriers to applying new theoretical approaches identified by librarians: Time, Faculty Resistance, Librarian Resistance, as reported by institution type and by region.

Barrier	Institution Type	Responses	Region	Number
Time	College (n=11)	5	Suburban/Rural	6
	Teaching University (n=6)	2	Urban	5
		4		
	Research University (n=5)			
Teaching faculty resistance/ lack of support	College	5	Suburban/Rural	3
	Teaching University	0	Urban	6
	Research University	4		
Librarian resistance	College	2	Suburban/Rural	2
	Teaching University	3	Urban	4
	Research University	1		

Table 5.5: Barriers to Applying New Theoretical Approaches

While there were a number of references to successful partnerships with the teaching faculty, few librarians described being fully engaged with the faculty at the curriculum development level. More frequently they reported

frustrations with the limited benefit of IL tool-based (versus critical) information literacy teaching, much of which stems from the discipline faculty's expectation of what is librarian work, and the limited time allotted to information literacy teaching: "Faculty come in with their firm expectations and they don't always have the time or the will to discuss with you different approaches. So that's one thing I've come up against" (Nicola). As reported by participants, this misunderstanding about the role of librarians in higher education teaching leads to conflicted expectations, based on the misunderstanding or lack of awareness of the discipline (teaching) faculty and the librarians' expectations and aspirations regarding their contribution to higher education teaching.

A number of examples regarding librarians' inability to teach information literacy in a more meaningful way also emphasised a fundamental lack of access to the students in their courses. While teaching faculty may attempt to include an information literacy module within their course, the limited time allocated to information literacy teaching was identified by librarians as a significant barrier to applying more critical information literacy teaching approaches:

[I]t's hard to ask an instructor...for more than an hour or two with the students. And if we are really interested in...having serious information literacy and having students that are...critical, and aware and engaged with the information that they're looking at, it's going to take way more time. I think that that's probably our biggest barrier...is time. (Hailey)

While time was identified as the number one barrier to applying new theoretical approaches, the teaching faculty's lack of understanding of the nature of information literacy teaching and library pedagogy was raised as another significant barrier. Beyond the ability to schedule enough time into a course's curriculum, the more complex problem of the lack of faculty understanding of library pedagogy and CIL was also prevalent among

responses. The gap in faculty awareness of what is involved in information literacy teaching is evident in this example from Lydia:

I had one instructor one time say “can you teach plagiarism and information literacy in 20 minutes?” And I said “no”. Because...he’s like “oh, I’m really tight on time, I need that time”. And I can’t teach it in 20 minutes...it’s not possible...so really, having everyone on the same page of understanding the importance of it and that it’s not something we can teach even in...an hour session, it’s hard to teach it (Lydia).

It is interesting to note that librarians were equally aware of the time challenges facing the faculty in teaching their particular course content, as well as the limitations to the time that was allotted to information literacy. As noted above, sometimes the minimal time provided for information literacy teaching within their curriculum was perceived by librarians as lack of understanding about library pedagogy. On other occasions, as noted below, some librarians’ experiences involved the need for basic training on the “mechanics of research” rather than the deeper aspects of information literacy. The frustrations due to the limited time and the limited impact of their IL teaching were described by Monica:

[W]hen 70% of your instruction efforts are targeted at first year students who are not familiar with the library, the structure of libraries, the research process for...academic...a high, post-secondary course...you spend a lot of time of talking about the mechanics of research, over and over and over. It doesn’t leave a lot of energy or time to really focus on...some of the higher order thinking skills (Monica).

While librarians understood the need to reach students at appropriate times within their courses, the challenge of access and the ability to address more than tools or the mechanics of research, was a consistent theme.

Challenges to Information Literacy Teaching in the Literature

The research reveals a consistent challenge which impacts on librarians: the lack of awareness within higher education institution of what is library pedagogy actually is (Bruce, 1997; Nilson, 2012; West, 2013, Cope and Sanabria, 2014). Lack of time, which was a recurring theme in librarians' accounts in this study, corresponds with findings in other jurisdictions (Downey, 2016; Tewell, 2018), and is at the root of many of the challenges reported by librarians in this research.

These results also converge with the library literature which emphasises success in information literacy teaching associated with an embedded approach and encouraging teaching faculty involvement in IL teaching (Boon, Johnston and Webber, 2007; VanderPol and Swanson, 2013; Harris, 2013b; Cowan and Eva, 2016). What is different between Canadian jurisdictions and the United States is the limited ability to embed library teaching within courses. BC academic libraries do not report any significant level of embedded teaching, beyond individual courses or individual disciplines. As reported in this research, BC academic institutions do not consistently create institutional student outcomes that incorporate information literacy, and library pedagogy is not well recognised within institutions themselves. While learning outcomes exist for individual courses, information literacy is not always identified as an outcome, and this means librarian access to students is constrained.

“Innovators here are suspect”

Beyond the commonly identified barriers of time and support for changing IL teaching, other barriers to new theoretical approaches identified were the organization's culture and the institutional or faculty support. Ten of the survey respondents identified the challenge of bringing about change in their institutions as a barrier. This theme included the impact of the organizational culture on the potential to change and evolve: “innovators here are suspect”

(survey respondent), or simply the challenge of trying to implement change within the context of teaching within another discipline's classes: "Mainly convincing faculty to let me try something new" (survey respondent). Other barriers identified included a lack of interest by the librarians themselves (n=4), and poor training or lack of training in or understanding of pedagogy (n=2), as noted earlier in this chapter.

What has been revealed in this research is that barriers to incorporating new theoretical approaches are often institutional rather than internal to the library. The interviews surfaced experiences related to external barriers, specifically the teaching faculty being unsupportive or disengaged from librarian pedagogical developments. Librarians felt discouraged by lack of understanding about information literacy teaching and their library pedagogy within their own institutions. Librarians reported that "there needs to be awareness at the institutional level...among senior educators, the senior leadership or senior education team, about what [are] the changes in information literacy" (Talya); and "...there's often a failure of imagination. And again, I'm peripheral to these faculties' lives, and I know that, but it's my job to sell them on the idea that they need me, and I can do that effectively if they have an open mind and see that need" (Nicola). The specific experience of a lack of imagination suggests the reason for librarians' limited engagement in new theoretical approaches is a response to historic barriers to introducing changes to their practices.

As noted earlier, some librarians identified examples of their ability to engage with theory related to critical information literacy, threshold concepts, and other learning theories. In particular those highlighted within the ACRL *Framework for Information Literacy* were remarked upon as far as how engaging with theory improved their interactions with the teaching faculty. Using the *Framework* was reported to offer one means of gaining the interest of the teaching faculty, particularly with the theory of threshold concepts:

I've presented it here to our faculty at our teaching and learning conference in a poster format. And I got a lot of traction that way. Because faculty could recognise that there is a point that students cross in their programs that changes fundamentally how they think about things" (Katharine).

The current limited opportunities for engaging with other faculty on pedagogical or critical information literacy theory, however, suggests that this may be one of the areas where it would benefit libraries and librarians to invest their time for improving relationships with faculty and enabling new library pedagogy practices to be accepted.

Identifying Gaps, Measuring Success, and the ACRL *Framework for Information Literacy*

Identifying Gaps: Improving IL Teaching

In an effort to identify what gaps the librarians perceived in their teaching theory or practice, I asked the question: *how would you like to improve library teaching?* The expectation was that this question would elicit comments related to librarians' exposure to and application of theories of library pedagogy, in particular. What is interesting is that only five survey respondents identified these as ways to improve their library teaching. Some of the responses related to learning about and applying theory, which did map against my expectations of the research, included these suggestions: "Use a more critical framework", "More focus on higher level concepts rather than the mechanics of research"; "More integrated approach through curriculum mapping to our program and courses"; "Move towards a more embedded model at an institutional level". Based on the literature, I had also expected more references to the application of technology and online engagement with students, including the flipped classroom approach; however, only five respondents specifically referenced online as a

mechanism for delivery. It is possible that the other librarians were implying both the in-person and the online environments in their comments.

A general sentiment of enabling the library IL teaching to be more relevant to the curriculum was also expressed:

I would like all of our teaching to be tied to a current need as opposed to a generic introduction to library resources. Scaffolding of IL concepts throughout students' careers through more frequent, shorter, applied interactions (survey respondent).

This idea that information literacy should be tied to point of need within a student's academic career shows how librarians are acutely aware of the implicit barriers to information literacy that arise when IL teaching is constrained to preliminary conversations about library resources and search tools.

Evaluation and Measures of Success

When I asked about library information literacy teaching measures of success, the data revealed a wide array of these types of measures across the participant institutions. The types of responses to the open-ended questions (with further follow-up in the interviews) clarified what librarians perceived to be the factors related to their least and most successful IL teaching. Through the survey, impacts to the success of IL teaching were identified primarily as resting with the discipline faculty either by not understanding what library IL teaching involves (or should involve), or not supporting librarians to achieve their teaching objectives (n=14). Survey participants noted their concerns such as "faculty who want a library session without being open to collaborate"; "faculty who are absent, disengaged or dismissive"; or "unrealistic expectations re library instruction, e.g. that we can cause students to become information literate with one 80-minute session". These comments connect to the consistent theme of relationship building between librarians and the teaching faculty. Relationships and collaboration

with the faculty is further emphasised by survey respondents as the means by which library teaching can be made more effective. In other words, the practical application of IL teaching benefits from collaboration with faculty, leading to improved connection between what the librarian is teaching and the courses' research assignments.

From the survey responses, participants' perceptions of the greatest success between librarians and the teaching faculty involved collaboration and communication (n=20). "Strong one-on-one librarian-faculty relationships that embed IL deeply into curriculum"; "Rapport, mutual respect for IL principles, embedded opportunities in LMS", were examples of both in-person and online collaboration opportunities. Furthermore, the importance of the relationship was specifically linked to collaboration for the purpose of improving the nature and impact of the IL session within the context of the specific course: "Faculty who bring librarians in to teach information literacy as just one part of an innovative, engaging research assignment – the library isn't a standalone set of skills, but part of something students see as meaningful" (survey respondent). The ability of librarians to have opportunities to share developments in library pedagogy and their aspirations for their information literacy teaching hinges upon the relationships that librarians develop with the teaching faculty. Examples provided by participants that identified the success of engaging faculty with new theoretical developments underpinning library practices make that clear. The implications of these findings are discussed in the following chapter.

Use of the ACRL Framework for Information Literacy

Librarians indicated a significant amount of interest in the ACRL *Framework*, both in their responses to the survey questions related to the *Framework*, and in the follow-up discussions in the interviews. From the survey participant responses, 83.3% (n=20) of the librarians had a chance to review the ACRL *Framework*. Sixteen respondents also chose to provide information about how they have applied the *Framework* in their teaching. Only two respondents, however, indicated developing specific application of

the *Framework* in their library. Of the 20 responses that referred to the ACRL *Framework*, two respondents *strongly agreed* that they were familiar with the theories used to develop the *Framework*, and a further 12 *agreed* that they were familiar. So, overall, the survey identified that a large majority of higher education librarians felt that they understood the principles behind the *Framework*. As the majority of librarians had already reviewed the ACRL *Framework*, it was not surprising that they were also aware of its underlying theories and principles as well as information related to its inception and development.

When asked whether the *Framework* would have an impact on their teaching practices, librarians also indicated that they believed it would have an impact, with two (11.1%) who *strongly agreed*, ten who *agreed* (55.6%), and a further five (27.8%) who *were undecided*. Only one librarian *disagreed* with the assertion that the *Framework* would have an impact on their teaching practices.

Analysis of these data indicates that there were no differences by region (urban or non-urban) in the librarians' or institutions' expectation of the ACRL *Framework* to change their teaching; however, there was a clear difference in expectation based on institution type. Of the 18 responses to questions related to the ACRL *Framework*, all but the urban research universities reported a clear belief that the *Framework* would impact their teaching practices. The respondents who selected *undecided* (n=6) were the urban research universities represented in this research. The urban research universities demonstrated that they were familiar with the *Framework* and its theories but were less engaged in processes to develop their teaching practices based on the *Framework*. This may be accounted for in part by the different mandates of the research universities from the more teaching intensive colleges or teaching universities. Also, as revealed in this research, it is the smaller institutions that appear to be taking the lead in developing practices based on the ACRL *Framework* in the province. Again, this may also correspond to the teaching mandate of these types of institutions.

Most tellingly, only one of 18 respondents indicated that their library had made a significant amount of change to its information literacy teaching practices, based on the *ACRL Framework*. One third (n=6) indicated a moderate amount of change, a further third (n=6) stated no change but were considering; and five of the 18 reported no change. This corresponded to the number of respondents who found areas of challenge in applying the *Framework*, with half of the 18 (n=9) indicating that they did find areas challenging to apply in practice, while a further seven did not know. Three libraries had not made any changes and so could not comment on areas of difficulty.

Within the survey and the follow-up interviews, there was generally a positive response to the *ACRL Framework*, and librarians expressed interest in finding ways to apply it in practice. A number of examples of how the *Framework* was being applied, or planned to be applied, were revealed in the interviews. For example, participants reported: "...I actually really like the fact that the newest version of ACRL doesn't really try to give you all the answers. It asks a lot of questions, it proposes a lot of open-ended stuff, and I like that. I can really work with that" (Nicola), and "I'm going to be rewriting a lot of my material in the coming year and I'm going to be applying as much of the *ACRL Framework* as I can" (Dennis). Other perspectives included:

I really appreciate what it's done in terms of getting more of a social understanding of information literacy. I really respect that about the *Framework*...it's not just skills. It's not just technological skills with databases. And so I think that's the big challenge that librarians are wrestling with this new framework and how to deal with it, because there's some aspects of it that just have very little to do, at times, with bibliographic instruction (Simon).

Simon's comments link directly with the concerns that librarians identified earlier, in which their information literacy teaching seems to be limited to the

scope identified by the teaching faculty, such as technology and search skills. As noted, the move away from the prescriptive skills-based approach also creates challenges to librarians to understand how to apply the *Framework*, and to teach information literacy in a different way.

I've found the ACRL *Framework* to be really useful for that...just kind of bringing the frames into practice has been really useful and...taking more of a critical lens or a critical approach...so kind of bringing a de-colonial...lens to library instruction. And I find that...the Frame about authority as being constructed and contextual is a nice way to look at that (Wanda).

As the comments above illustrate, many librarians in this study described how they found aspects of the *Framework* to resonate with their practices, and supported their ability to take on a more critical approach.

In contrast, a number of barriers that BC librarians have encountered in redeveloping information literacy teaching based on the new *Framework* also arose. This is supported in some of the comments related to the application of the *Framework*, such as what was highlighted by Hailey:

I think at this point we're all still in the process of kind of doing our own reading and talking about it...But we are talking about, especially the scalability of how we're doing instruction right now we may have to have conversations in the near future that do make some of our teaching a little more explicit (Hailey).

Application of the ACRL Framework in the literature

As my findings demonstrate, in contrast to the literature which has identified librarians' increase in understanding of teaching and learning theory; the value of an embedded approach to information literacy teaching; and curriculum mapping (Accardi, Drabinski and Kumbier, 2010; Pagowsky and McElroy, 2016), these are not areas that were explicitly identified by BC

librarians to improve their teaching practices. While the *Framework* has been criticised as not being as easy to implement in practice than the former *Standards* (Creed-Dikeogu, 2014; Dempsey et al., 2015; Bombaro, Harris and Odess-Harnish, 2016), the nature of the new *Framework* seems to offer BC librarians new ways to approach their information literacy teaching with a critical lens.

Beyond the barriers of time and resources, a tension between developing library pedagogy related to effective information literacy teaching, and the time to assess the work of teaching, has arisen in the literature. While developing new practices based on the *Framework* would provide support for incorporating new means of assessing information literacy teaching, the tension between teaching and evaluation of learning outcomes has emerged as a barrier in the literature in other higher education contexts. Drabinski (2017) described this tension as a “paradox” in her assessment of the conflict between librarians applying critical practices with the competing requirement for assessment and outcomes:

The Framework’s perspective on assessment fits hand in glove with critical pedagogy, emphasizing the importance of local, contextual learning outcomes that are measured with tools that make local and contextual sense. However, this approach somewhat paradoxically requires librarians to spend more time conducting the assessment work that many critical practitioners contest on the grounds that it constitutes a distraction from teaching and learning. If librarians spend more time developing measurement tools, they must spend less time doing other forms of liberatory work in the library (Drabinski, 2017, p.7).

The difference in assessment compliance within the BC and Canadian context, as opposed to the accreditation regimes of the US tertiary system, both complicates and liberates the application and uptake of the ACRL *Framework* outside of the US. While BC higher education librarians do

attempt to assess learning outcomes, the requirement to follow learning outcomes based on standardised undergraduate curriculum is less rigid. More specifically, the very nature of taking a critical information literacy approach to teaching directly rails against the types of accreditation regimes that have taken root in most jurisdictions. As noted by Tewell (2018), critical information literacy, by its nature, leads to opportunities to teach in a variety of ways. The underlying intention to CIL is to apply liberating principles to library practice, and to help students to be able to approach those concepts, for themselves.

Summary of Findings

Data from this research have provided a rich set of findings that need to be more fully considered for their implications and recommendations for BC higher education library pedagogy. In common with other jurisdictions, librarians are highly engaged in developing their information literacy practices (Bury, 2017). In contrast to US jurisdictions, however, application of critical information literacy and the ACRL *Framework* are more limited, even though interest in understanding these more was expressed (Badke, 2017; Tewell, 2018). Relationships with peers and faculty were consistently raised as critical for success in information literacy teaching and with being able to develop new theoretical approaches to library pedagogy, while relationships and lack of time were also barriers to the same (Julien, 2000; Cull, 2005; Julien and Pecoskie, 2009). While many results affirm observations from the literature on IL teaching within higher education in other contexts, many other reveal new insights. The following chapter provides discussion, further implications and recommendations for the profession within BC and Canada.

6. Conclusions

This final chapter discusses the findings from this research, their implications, and makes a series of recommendations related to improving librarians' and teaching faculty awareness and understanding of critical information literacy in BC higher education library practices. The first section summarises answers to the research question and sub-questions. The *Further Insights from the Research* section discusses other key findings, such as strategy development, implications for library education, increasing diversity of the profession, and it offers recommendations for practices. The *Further Implications of the Research* section addresses findings within the context of BC higher education, confirms the gap in current research in the field that this research begins to fill, and this is followed by a section on the generalisability of the research findings. Finally, the *Recommendations for Further Research* examines areas that would benefit from further research, arising from what was identified within this study, and matters that were identified as implications beyond the scope of this research.

Research questions

This section summarises the findings which have provided answers to the research questions, and the implications of these findings are then explored and recommendations for BC higher education libraries are made. The sub-questions are examined first, as the discussion of these contributes to the development of a response to the overarching question.

a) How do academic librarians understand the term “critical information literacy”?

Although most BC higher education librarians were aware of critical elements related to critical information literacy (CIL), there was little sign of a common definition. Most participants offered a definition of CIL, but few were able to articulate their understanding of CIL by drawing on the metalanguage which is commonly used in the literature. Furthermore, even when librarians provided a definition, they expressed uncertainty about the accuracy of their definition. As reported in the *Findings* chapter, a majority of participants (58%) believed that they had a conceptual understanding of critical information literacy, while a significant portion (one quarter) stated clearly that they did not understand the concept. When probed during the interviews, librarians frequently drew on concepts related to critical thinking when discussing critical information literacy.

While this is the first study of its kind in BC higher education, the results regarding librarians’ understanding of the term ‘critical information literacy’ is unsurprising since, as the literature notes, there is no agreed upon definition of CIL (Accardi, Drabinski and Kimbier, 2010; Downey, 2016; Tewell, 2018). The lack of consistency in terminology is not necessarily problematic because, as is currently the case with traditional information literacy, there is a range of definitions which may be applied in different contexts. Critical information literacy, however, as a term in development, does consistently incorporate the application of a critical lens to library information literacy practices within North American higher education. Within the literature, definitions include a focus on critiquing library practices, both within and outwith the classroom – at each stage drawing upon social justice perspectives when teaching information processes, from creation, to evaluation, and application. This common understanding was shared by many, but not all, of the participants in this research, and it would be beneficial to librarians, faculty and students if such an understanding were more widely shared in the BC higher education environment. In particular, a

shared definition should include an understanding of the most commonly-stated principles that underpin critical information literacy practices, such as the intended emancipatory nature of information literacy, and an understanding of the power structures related to information production and authority. As stated earlier: this may mean addressing both critical consideration of information, its source and authority, and the implications of library teaching for developing social justice awareness, including the power structures inherent in information production and use. Helping librarians to access the theories that inform critical pedagogies and other learning and teaching theories, in particular, would help them better to internalise and communicate the purpose and value of critical information literacy as it applies within the academy both to teaching and broader library practices.

The majority of survey participants stated clearly that they felt a need to understand how to apply critical information literacy in practice. Further probing in the interviews underlined that need, even amongst those who reported actively applying a critical lens to their teaching practices. When they described their critical practices, most of the librarians expressed an implicit understanding of the concept rather than the ability to articulate clearly a definition. In other words, they demonstrated procedural (implicit) rather than declarative (explicit) knowledge. The librarians' inability to define and explain their library pedagogies, drawing on relevant underpinning theoretical concepts, is problematic in an educational context. As Schilhab (2007) notes: "[d]ependency on context and embodiment makes implicit knowledge almost impossible to convey to others...and renders explicit knowledge superior with respect to school teaching in the scholastic tradition" (Schilhab, 2007, p.236). Dienes and Perner (1999) clarify the difference between the two types of knowledge and their effect on teaching, whereby "procedural knowledge tends to be implicit and hence inaccessible, whereas declarative knowledge involves quite explicit representation of its content, and hence tends to be conscious and accessible for different uses" (p.743). BC higher education librarians need to be able to convey, both to

students and teaching faculty, the foundations of their practices, even if they are not explicitly teaching the theories that inform those practices.

Without the librarians' ability to define the 'why' of practice, convincing the discipline faculty to allow librarians to teach in new ways within their courses will continue to meet with resistance at worst, and disinterest at best. As long as librarians are unable to define and justify their practices it will be difficult to convince the discipline faculty of the need to incorporate CIL into their courses; and without being able to identify outcomes for CIL practices, these cannot be incorporated within the curriculum. So, **my first key recommendation is for librarians in BC higher education and library school educators to develop common, agreed-upon, terminology and a shared model for BC higher education information literacy teaching.**

Mechanisms for doing so could include an initiative through the BC Academic Libraries Section of the BC Library Association, or as an initiative spearheaded by the Council of Post Secondary Library Directors (CPSLD).

b) How do academic librarians understand the role of critical information literacy in their instructional practices?

Beyond the need to agree upon a shared definition of CIL, there need to be more consistent opportunities for BC librarians to engage in conversations related to pedagogical developments and critical information literacy with the intention of helping librarians to apply more CIL practices into their teaching. Librarians frequently revealed a deep interest in being able to develop their information literacy teaching through encouraging increased criticality and closer engagement with students in their disciplines. Opportunities to reach more students within the institution are necessarily linked to familiarising the discipline faculty with librarians' pedagogies, and encouraging the faculty to embed CIL into their courses.

As reported in the *Findings*, several librarians identified opportunities they had explored to apply new approaches to the teaching of information literacy

that would lead to a more critical understanding of information and its application in student research activities. These examples included applying feminist pedagogies; empowering students to contribute their voices to scholarship; and looking at current event and social media communications as authoritative sources, depending on the issue. **Workshop development, either within the context of the annual BC Library Association conference, or as an aspect of the CPSLD's mandate, could provide opportunities to share developing expertise and to create a body of work that emphasises the evolving role that librarians play in teaching information literacy within the BC context.** This is especially important because although a number of librarians recognised that ideally critical information should be embedded in their practices, many did not see a practical application for CIL, given their particular student body or current IL teaching practices. A response to this sense of unease with new theoretical approaches may be for libraries to participate in communities of practice in support of critical information literacy development within the province. This approach could ensure that all librarians have access to supportive documentation and networks, (both virtual and in person) to improve their understanding of theories which should underpin and inform their practices.

The librarians' questioning of how to apply new theoretical concepts to their practices also linked directly to their expressed belief in the value of the ACRL *Framework*. This referencing of the *Framework* should form the foundation upon which librarians could improve their understanding and application of new approaches to information literacy in BC. The ACRL *Framework* documentation is intended to support librarians in developing awareness and engagement with theories and concepts that underpin information literacy teaching. Through the documentation related to the *Framework's* development and purpose, it offers BC librarians a means of communicating the purpose and value of IL teaching within their own institutions. While some have already presented the *Framework* within their institutions, and have recommended that the theories, concepts and practices which inform it should be adopted, many others have not explicitly

done so. A more systematic approach to understanding and applying the *Framework* in BC higher education IL teaching could contribute to the developing scholarship on the effective application of the ACRL *Framework* in North America. At the same time, BC librarians would likely benefit from assistance to identify and use the specific Frames that work in their context, specifically through workshops or online blogs offered by individual institutions which are open to the community of academic librarians. This approach, rather than a standardised application of all aspects of the *Framework* across all institutions, would support IL teaching development within their specific educational context.

c) How are librarians using the critical information literacy aspects of the ACRL *Framework* in their teaching?

As noted above and in the Findings Chapter, most of the librarians identified the *Framework* as the theoretical structure upon which they base their understanding of critical information literacy practices. In particular, librarians felt that they understood some aspects of the *Framework* better than others. For example, librarians frequently talked about the concepts of authority (from the *Authority is Constructed and Contextual* frame) and the ability to help students to view information development and dissemination through a critical lens (*Information Creation as a Process* frame). What has been revealed in this research is that current applications of the *Framework* to local practices are limited in their strategic approach. Most librarians in BC are not engaging with the ACRL *Framework* in the development of their information literacy teaching practices. This means that there is an opportunity for the academic libraries across the academic community in BC to work together to develop a common strategy which would contribute to the understanding and application of the *Framework* more broadly. This approach could be facilitated as an initiative of the CPSLD.

While not explicitly or solely related to critical information literacy, the *Framework* offers librarians in BC great potential for developing information

literacy practices. The ACRL *Framework* is not the only guidance for librarians to further their understanding of theories that inform developments in their practices, but it is recognised as an important contributor for improving BC library pedagogy. As reported in the findings, this approach has already begun with ad hoc workshops within the BC higher education community and internally in some institutions. Building on this interest and engagement, individual institutions could work co-operatively to host professional development and in-service sessions which are open to all higher education librarians – sessions which focus on both the *Framework* and encourage a wider discussion of learning theories and critical information literacy. Because Canadian librarians can choose to structure their information literacy teaching around any framework or information literacy model, **the ACRL *Framework* provides one opportunity to discuss and develop IL teaching. It should not be considered the only model, nor should it be applied uncritically, in the BC higher education context.**

c (i) What, if any, *Framework* concepts do librarians find the most challenging to understand and implement in practice?

As the research revealed, librarians found the overall structure of the *Framework* and its terminology to be confusing, and reported that many of the frames themselves were challenging to apply in practice. Librarians frequently referred to the more prescriptive ACRL *Standards* which they felt were more practical and easier to apply within their IL teaching practice. Their perception of the value of the new *Frameworks* was in its potential to offer new opportunities for, and expansion of, information literacy teaching, based on the underpinning of new theoretical concepts. While librarians did not necessarily understand the terminology used within the *Framework* documentation, there was significant interest in exploring it further and applying the *Framework* to their practices. Again, given the context of the BC higher education environment which does not require standardised accredited teaching in IL, the drivers for improving IL teaching were localised

to the individual institution. A key contribution to practice from this research is that it does allow for generalising the findings from this study across all public higher education in the province: in particular that all institutions reported a need to continue to explore new approaches to teaching IL, especially those that could improve critical thinking and critical application of IL. The current environment involves each institution developing its own outcome measures and assessments (if they exist at all), so **all academic libraries could benefit from sharing their individual approaches, rather than attempting to create a singular model for the province.** Being able to agree upon a single model is unlikely, given the independence of each institution, but devising common guidelines may nevertheless be feasible. Some research guides have been developed and shared, but **more formal or structured mentorship and sharing opportunities, potentially initiated by the BC Academic Librarians Section of BCLA, could benefit all institutions, particularly concerning the theoretical underpinnings of information literacy and library pedagogy.**

d) What challenges do academic librarians report?

As this research shows, challenges and barriers that BC librarians reported encountering in their information literacy teaching to incorporate aspects of the ACRL *Framework* mirrored the experiences of librarians in other academic contexts. As recognised by the librarians in this study, the *Framework* is not prescriptive, in contrast to the previous ACRL *Information Literacy Competency Standards for Higher Education* (ACRL 2000). Determining how the *Framework* may be used to inform each library's teaching practices has been challenging, particularly as it requires time and resources to understand and to adapt. The relatively theoretical nature of the *Framework* has also led to librarians attempting to create more prescriptive approaches to its implementation. This response to the *Framework* is unfortunate, given that one of the *Framework's* key aims was to attempt to move IL teaching away from the prescriptive approaches that are evident in the previous *Standards*: "The *Framework* offered here is called a framework

intentionally because it is based on a cluster of interconnected core concepts, with flexible options for implementation, rather than on a set of standards or learning outcomes, or any prescriptive enumeration of skills” (ACRL 2015). Flexibility, and a move away from prescription, have clearly formed the basis of the structure of the new *Framework*; however, librarians require significant support to develop and apply new theoretical approaches in their practices to help them to achieve these aims.

Barriers to librarians’ ability to learn about and apply new theories to their practices was identified in the *Findings*, including a sense of lack of time to learn about new theories. A recent study by Tewell (2018) reported similar results regarding a sense of lack of time as a barrier to developing information literacy teaching. This barrier included the amount of time needed to prepare for classes; the amount of time available to teach IL in a single class; and the lack of time to increase IL teaching to reach a significant portion of the institution’s student body (Tewell, 2018). Addressing the lack of resources in any one institution is possible through peer support and sharing initiatives between institutions in BC. Partnering more frequently with teaching faculty and through the Teaching and Learning services in individual institutions could be another way of addressing the lack of time and teaching resources, as described in the next section.

For institutions that are in urban environments, sharing and peer conversations are relatively easily organised. For those located in more remote areas of the province, a different approach needs to be taken, and this desire was raised explicitly by participants within the survey and interview responses. While lack of time and internal resourcing cannot be fully addressed, sharing of expertise and the development of practical applications of the *Framework* are possible through the further development of peer networks. As my research identified, these types of cooperative approaches have been and continue to be one of the historic strengths of the BC public system. **Sharing implementation strategies, by using a distributed model of developing expertise in different aspects of the**

Framework at different libraries, or developing expertise in theories that underpin current and future library practices, offers great potential for the development of librarians' practices across the province. The opportunity to create a new community of practice online, such as specific blog or website to support the scholarship and practice of critical information literacy in BC, could support all institutions. Building on the existing presence of the BC Academic Librarians Section could be one way to achieve this. While most librarians in BC have access to professional development opportunities, library leadership courses, either in individual institutions or partnering with other groups, such as CPSLD or the BC Library Association's Academic Libraries Section, could provide specific critical information literacy sharing opportunities. These opportunities could include workshops which are open to all institutions, an online CIL community of practice to support research and scholarship opportunities to support librarians to focus on information literacy teaching developments in BC higher education.

Overcoming Barriers: Partnerships Within Institutions

Badke (2017) argues that librarians must work with their peers beyond the library environment to develop IL teaching within their institutions: "the task of information literacy needs to be turned over largely to disciplinary faculty, guided by the information literacy expertise of librarians" (p. 24). Using an approach that promotes an understanding within institutions related to library pedagogy, and then encouraging discipline faculty to integrate CIL within their curriculum, are strategies which have been in other pedagogical developments, such as through the scholarship of teaching and learning. Teaching and Learning services in BC higher education institutions have been leading the pedagogical developments within their institutions. Exploiting more fully the potential to explore and share library pedagogical developments through incorporating them into teaching and learning initiatives is a nascent opportunity within the BC environment.

Current developments in library pedagogy challenge the persistent instrumental or skill-based IL teaching to move toward more transformative

learning experiences for students. The nature of librarians' procedural versus declarative knowledge related to critical information literacy is both a barrier and an opportunity to explore new pedagogies. This ideal can be expressed through approaches that librarians can take to work on pedagogical practices with the teaching faculty. In particular, librarians and teaching faculty can share expected outcomes and work together on shared teaching approaches for IL teaching within the disciplines. Barbara Fister (2013) came to the same conclusions in her LOEX presentation when she stated that "[l]ibrarians should spend as much time working with faculty as working with students" (p.14).

In order to meet these aspirations, librarians need to engage more effectively with the teaching faculty within their own institutions. Reports by librarians that some of their most effective work in embedding information literacy teaching has been through partnering with the institutions' Teaching and Learning services, leads to further recommendations. As my research revealed, when librarians engage with the Teaching and Learning (T&L) Centre they have opportunities both to develop their own teaching and library pedagogies, as well as to create supportive allies who are open to partnership opportunities that could embed CIL across the curriculum. **In BC educational environments, which have an increasing focus on pedagogy and on improving the practices in higher education teaching, higher education librarians should be placed at the centre of Teaching and Learning (T&L) activities in their institutions, making it possible for their expertise to be accessed and shared across the faculty groups.** In practical terms, this may mean librarians partnering with T&L faculty in pedagogical development workshops, or in developing recommended IL assignments to embed in the curriculum.

e) How are librarians in BC higher education applying critical information literacy in their practice?: Initiatives and Examples.

As revealed in the Findings, the majority of the BC higher education librarians reported that they applied aspects of critical information literacy in their teaching practices in a range of ways, and with varying degrees of success. Formal teaching was the primary focus of CIL activities, but attempts were also being made to connect CIL with reference and research support, and with other library services. One notable example involved references to de-colonising or indigenizing the library overall, and incorporating indigenous perspectives to the development of library collections, research guides and library practices, beyond classroom activities. **Approaching information literacy more critically could be addressed through the exploration of indigenization and social justice, supported by aspects of the ACRL Framework.** Currently, these approaches have been considered by research participants in my study to be limited in their application, and so offer areas for further investigation. Opportunities to share understanding of social justice as it applies to library practices, and the need to develop library pedagogies towards achieving social justice aims, could support both institutional and national objectives in higher education. **The development of guidelines to address de-colonising the library, including teaching, reference services, collection development, and other library practices, could be beneficial to all of the institutions across the province.** As each indigenous group has its own specific and localised protocols, any library de-colonising efforts need to be developed by institutions in conjunction with the indigenous peoples of their specific territories. Even though they will be specific to their particular institution, any developed frameworks or recommendations for actions will be valuable guidance information that should be shared amongst the CPSLD members.

A comparison of the findings of this research with recent research related to US academic librarians using CIL in their practice highlights the different nature of the approaches by jurisdiction. In Tewell's 2018 study, librarians identified a very clearly-defined set of practices focussed on critiquing library activities generally, as well as discipline (context-specific) aspects of

information literacy teaching: “five primary themes in terms of teaching critical information literacy topics emerged: Classification; Search Examples; Academic Conventions and Access; Corporate Media; and Alternative Media” (Tewell, 2018, p.8). While librarians in this BC study identified general ways to apply critical information literacy in practice, the focus and variety of specific examples of applying the theory in practice were remarkably limited. As noted earlier, the strongest focus in my research findings was on de-colonising or indigenizing the academy, rather than looking at fundamental library practices (such as classification systems or subject headings), or broader application of social justice within library teaching and beyond.

While individual initiatives are underway, as were surfaced in the current research, more formalised means of sharing the exploration of theory and application in practice should be encouraged. Rather than solely focussing on teaching, librarians should be prepared to critique all of their practices through a new set of critical lenses concentrating on social justice and indigenization. **The leadership in each of the institutions, meaning the Dean, Director or University Librarian, should incorporate indigenization and de-colonising as a specific goal within their library operational plans** (and some do so already). This could ensure that the Library is supporting institutional indigenization aims, or is even able to provide leadership to the greater institution by modelling these actions.

The Council of Post Secondary Library Directors (CPSLD) provides a forum for BC higher education library leadership to support initiatives across institutions. While sharing already occurs, as is the case with copyright education modules and recent indigenization recommendations, further explicit leadership should be incorporated into this council’s annual plans. Through the participation of library leaders from the individual institutions, the CPSLD could support initiatives that improve the teaching of a more critical information literacy across the province, including workshops, online communities, and information exchanges.

How are Librarians in BC Higher Education Applying Critical Information Literacy in their Practice?

This research offers two key insights into librarians' thinking and practice. First, critical information literacy was considered to be more aspirational than practical in many educational contexts (even when librarians perceived a value in understanding more about CIL). Many librarians expressed a sense that CIL would not work in their environment, or with the types of students with whom they have most contact. This sense of aspirational rather than practical approaches to CIL emerged in the examples provided, such as in the case of students in first-year academic courses or those enrolled in purely vocational programs. These perspectives spoke directly to a lack of appreciation of the potential to apply critical information literacy across all program areas, and the ability to support all students in their critical reasoning and application of a social justice lens related to their information needs. Helping students to understand the potential they have to contribute to scholarship, rather than to simply consume information uncritically, is one of the fundamental aims that libraries in other jurisdictions are attempting to achieve through critical approaches. My recommendations as noted above may prove helpful in addressing and critiquing current library practices.

Second, in this research there were limited references in the data to the application of social justice to IL teaching – de-colonisation being the significant example that was provided. There was almost a complete absence of discussion about higher education libraries' support for social justice beyond those that noted consideration of de-colonisation or indigenization. While some librarians did explore concepts of critical approaches generally, most of the consideration was within the teaching context and there was very little beyond the classroom. This may be because higher education institutions have only recently begun addressing possible ways to de-colonise all aspects of their practices; however, it does highlight a need for academic libraries within the province to show leadership in this area. There is the potential for librarians within BC to communicate to

students and faculty, in a systematic way, the urgency for libraries to modify traditional library practices. Reporting on the outcome of their research, Gregory and Higgins (2013) reported that

[J]oining critical information literacy instruction practices with social justice pedagogy had enabled us to use strategies in the classroom that challenged students' understandings of gendered roles, sexuality, environmental justice, and other social issues which drew from students' own experience and knowledge (Gregory and Higgins, 2013, p.6).

Bringing together expertise and practices from other regions and institutions would be one way to develop further current practices in BC. This could be enabled in a number of ways, for example by encouraging the development of a *Critical Information Literacy* Division of the BC Library Association for the engagement of the entire BC library community. This could lead to mechanisms for supporting critical information literacy scholarship – with the potential to collaborate with the existing BCLA *First Nations Interest Group* – and the expectation of the delivery of workshops or conference presentations at the annual BCLA conference. Another mechanism is for CPSLD member institutions to jointly support teaching workshops on social justice and information literacy topics, rather than leaving it to the initiative of individual institutions as is the current situation.

The homogenous nature of the library profession in BC may be one of the reasons why there has been limited development in this area. As one of the participant librarians pointed out, the library profession in BC is not reflective of our students, because it is a profession which is populated predominantly by women of European descent. This lack of diversity plagues the profession in North America, even though the American Library Association identified diversity as one of its core values in 1999 (Morales, Knowles and Bourg, 2014). While diversity is an espoused aspiration of most institutions, and is supported by human resources policies, focussing on initiatives which could

bring about change, both in the library schools and in the hiring practices at institutions, needs to become more of a priority. **The university library Master's programmes should recruit more strenuously individuals from diverse backgrounds to enrol in their Masters programs. Within institutions, helping students to understand what it is that librarians do is another way of developing longer-term recruitment of a more diverse range of librarians.**

Beyond the profession's need to be more reflective of the students that we teach, there is still the potential to improve the focus on social justice within our practices, through a critical information literacy lens. There was significant evidence from the interviews that librarians were interested in addressing social justice within libraries, particularly with respect to de-colonising practices. Addressing broader social justice considerations of library practices is another opportunity for higher education librarians. Being more systematic in the thinking, planning and application of services and approaches within the library educational context could help librarians to communicate a better understanding of the purposes and implications of library services within their institutions. These changes would likely be stimulated through modelling of new practices, and sharing the developing expertise across institutions. By building on BC libraries' current cooperative attitudes, developing mechanisms to offer ongoing professional development to share discussions on the application of pedagogical, learning, and critical information literacy theories is an achievable way to develop the higher education library environment. Support for enabling these cooperative behaviours could come from the library administrators, particularly by setting goals within their library's annual or strategic plans. **The development of a common set of critical information literacy guidelines for the province, drawing on expertise in existing networks and collegial groups, such as through the CPSLD, could also be an ultimate goal across all academic libraries in the province, forming a model for other jurisdictions in Canada.**

Further Insights from the Research

Strategy Development

Analysis of the findings of this research highlights a significant need for librarians to work collaboratively across BC to create formal information literacy teaching strategies focusing on CIL. This strategy should focus on holding discussions to support understanding of CIL; on how to share the development of BC library pedagogies through the ways that libraries localise the application of the *Framework* or other models; and discussions on how librarians want to engage the teaching faculty in IL throughout the curriculum. Librarians also expressed their interest in addressing the ongoing need to teach the ‘mechanics’ of research while moving librarians and library pedagogies beyond an instrumental approach in the classroom and beyond (Jacobs, 2008). A communicative aspect to the strategy for applying CIL approaches could be the first action. Without creating the expectation of an instrumental approach to CIL, this strategy could promote discussions of how libraries could develop more critical information literacy approaches to teaching for all students and programs, including the hard-to-reach vocational programs and the science disciplines.

Research with Canadian higher education teaching faculty on their perceptions of the importance of IL indicates a high level of awareness of the value of IL teaching but not necessarily a willingness by teaching faculty to see librarians in partnership roles in teaching of IL (Ducas and Michaud-Ostryk, 2004; Gulbraar, 2004; Bury, 2011; Badke, 2017). “In the area of teaching / instruction, there was a sharp contrast between the librarians’ willingness to collaborate and the faculty’s lack of interest. Faculty want librarians to retain their traditional role despite the paradigm shift in higher education” (Ducas and Michaud-Ostryk, 2004, p.347). Moving IL from a ‘library only’ activity to an embedded aspect in all curricula, is one model that may enable greater access to students for IL teaching within BC, as it has done in other jurisdictions.

The recommendations from their study at the University of Manitoba provided similar suggestions for improving both relationships between faculty and librarians and opportunities for the integration of IL into teaching at the institution:

Support can be provided two ways: by creating a programme of integrated information literacy instruction, and by developing and maintaining a programme of professional development for librarians who teach. In this way, librarians can move beyond their traditional roles as helpmeets to faculty, and truly take their place at the heart of the academy (Dakshinamurti and Braaksma, 2006, p.123).

While the literature of information literacy continues to promote those suggestions, the BC environment reflects a range of successes in meeting those expectations.

Developing partnerships with the cross-disciplinary T&L services in each institution is one way to approach the strategy of integrating information literacy teaching across the curriculum. **A strategy developed co-operatively across CPSLD members or other library networks in BC could benefit both large and small institutions, and should encourage the promotion of, and agreement upon, the need for a common IL teaching goal across the province.** There is potential for an online community specific to BC Information literacy teaching, with the means to share information and strategies across the geographically dispersed institutions. CPSLD could provide the leadership to the BC higher education community by launching such a community amongst its members.

Implications for Librarian Education

Findings from this research study also highlight a need for librarians to have more effective education in pedagogy, and to consider the implications of addressing social justice across all library practices. As Hodge (2015) clearly states:

While K-12 teachers take numerous classes on teaching methods and educational psychology and even doctoral students sometimes get a semester on pedagogy before they're thrown into the classroom, most non-school librarians must learn on the fly or from colleagues at conferences (p.1).

This lack of exposure to pedagogical theories, and the inability to develop pedagogical expertise within the library school curriculum, may lead to ineffective teaching practices being adopted by new librarians.

At a fundamental level, librarianship continues to be a profession in need of legitimacy in our current educational environment and information society: "...the lack of an intellectual basis marginalizes LIS as a research project in others' view; lack of evident work value and greater participation or control of [technical] work products likewise marginalize LIS" (Benoit, 2002). This may be the key challenge to current library pedagogical practices in higher education. A response to the challenge should come from the institutions that teach the librarians (university masters programs) to encourage the librarians' engagement in both the scholarship of librarianship, and teaching and learning.

Further or continuing education should also become an important mandate for the Library schools (iSchools) to support librarianship's development and scholarship. The library schools could help to close the gap in Canadian library scholarship, outside of graduate degrees, by offering courses in developments in library pedagogy and critical librarianship as well as other types of workshops to graduates. Expertise could be recruited from within the province, as there are librarians who self-identified as holding some expertise on critical librarianship and are interested in engaging in this topic with colleagues throughout the province. **A specific course on the developments in library pedagogies, including the intersections of critical theory, critical pedagogy and critical literacy with the work that**

librarians have more traditionally been responsible for (information literacy), should be beneficial for librarians intending to work in any library sector.

Increasing Diversity in Higher Education Leadership

As noted earlier, another essential focus for the library schools in Canada is to become effective at recruiting individuals who better represent the multicultural nature of the country, with a particular focus on underrepresented or marginalised peoples. Recruiting through overt actions such as bursaries or scholarships for students from marginalised communities may be one way of achieving this. This commitment to diversity also begins in the actual field of practice, through encouraging our own students to critique and contribute to the development of library practices, including the teaching of information literacy. Academic librarians need to apply the principles of social justice through critiquing library practices with the aim of developing a critical information literacy approach across academic library pedagogy. When our students better understand what it is that librarians do, they may be more inclined to pursue or support the profession. **For students enrolled in the librarianship Master's program in BC, specific course offerings related to social justice and libraries could reinforce further the concept of social justice and indigenization of libraries for the benefit of supporting and expanding critical library practices, including CIL.**

Developing a Shared Leadership Approach

While higher education institutions operate independently of each other, their primary funder, the BC Ministry of Higher Education, encourages a level of cooperation amongst institutions. Librarians in general are very co-operative with their peers, both within their institutions and outside, but no specific body exists to address the development of library pedagogy in BC. Beyond individual practices and relationships, the CPSLD meets bi-annually to share information and discuss potential areas for common support or development. While entirely voluntary, membership in library associations, such as the BC

Library Association (BCLA) and the Association for College and Research Libraries (ACRL) provides other opportunities to learn, share and develop higher education librarianship. Leveraging these existing voluntary associations could provide opportunities for a structured process for mentoring IL teaching librarians.

As my research revealed, smaller institutions often look to larger ones for expertise and support because of their mandates, resources and expertise. From this current study, it was revealed that while the urban research universities demonstrated that they were familiar with the ACRL *Framework* and its underpinning theories, they also reported that they had applied fewer changes to their teaching practices than other institutions. While the teaching mandate of smaller institution may be one reason for this difference, it is interesting to note that in BC it was the smaller institutions that were frequently taking the lead in developments in information literacy and indigenization practices. As reported within the Findings Chapter, medium-size and smaller institutions often showed leadership in offering shared professional development opportunities or used collaborative models to develop pedagogical approaches within their own contexts. **It would be beneficial to recognise that the resources and priorities of each institution will change over time, and that opportunities to provide leadership may arise from small, medium or large institutions. Each institution should be encouraged to take on a leadership role as opportunities arise, and could be encouraged to do so within the CPSLD mandate.**

The fact that librarians aspire to reach the entire student body for information literacy teaching means that librarians in BC higher education actually have direct contact with more students than the majority of the discipline faculty. For example, librarians may try to reach all students enrolled in first year foundation or required courses, in addition to discipline-specific and higher-level research courses. Given the reach of the librarians' teaching, it is clear that improved institutional understanding and support for librarians'

aspirations to develop critical information literacy abilities with all students should be an area of focus for library administrators. Improving understanding of the role of libraries in higher education speaks to the need for greater engagement in the scholarship and research of academic librarianship, library pedagogy, and other library or teaching theory and practices.

The development of the scholarship of teaching and learning within BC could enable library administrators (Library Directors, Deans, University Librarians) to increase the awareness of the value of library practices to the institution's senior leadership. This may lead to

increasing the potential for improved funding for library teaching. It could also provide communicative mechanisms for librarians to convey better their aims and values to the faculty in the disciplines. While some libraries already have strong relationships with the Teaching and Learning services at their institutions, enabling the integration of library pedagogy with the broader pedagogical developments at institutions, and across the province, should be beneficial for librarians and their academic libraries. Leadership in this area can be supported through the Council of Post Secondary Library Directors, and particularly by those Directors and Deans who have teaching and learning functions reporting within their portfolios. CPSLD members can model successful initiatives and relationships for each other, including linking workshops in this area with the semi-annual meetings of the CPSLD.

Further Implications of this Research

The findings from this current research study provide previously unreported and valuable insights into the current state of information literacy in BC, and the potential that BC librarians perceived for developing more integrated and critical approaches to teaching. Support for building improved understanding of library practices through the development of a provincial-wide set of guidelines or expectations, similar to accreditation processes, is one approach to achieving this aim. Information literacy teaching is a cross-disciplinary concern, and even though partnerships do exist between

librarians and teaching faculty, IL is persistently isolated within libraries. Effective measures to teach information literacy cannot be achieved by librarians alone (Mounce, 2010; Badke, 2011). As noted in the literature, and throughout the research conducted in this study, the lack of a co-ordinated effort within and across institutions for information literacy teaching is a barrier to librarians achieving their objectives. Depending upon those faculty members who are supportive of information literacy teaching, or accessing students in only some of the disciplines or courses is the current reality.

Educating all teaching faculty and administrators, and creating a common message regarding the importance of applying critical information literacy across all disciplines, should be a primary concern for BC academic libraries. Many librarians are contributing to the scholarship of critical librarianship, and to applying developments in pedagogy to their library's teaching and other practices. While highlighting existing examples is beneficial, further development in addressing the gaps to support all higher education librarians and their communities should be considered essential.

Generalisability

As described in the Methodology chapter, there is a degree of generalisability, because of participant representation across the province. Most of the BC public institutions (22 of 25, or 88%) participated in the survey, and every region and institution type was represented. Those contributions were further expanded in the in-depth interviews of 13 public higher education librarians (or 52% of the 25 institutions) which ensured representation from all institution types and regions. While I cannot claim complete generalisability, the findings provide a detailed picture of library pedagogical practices within the province, and it is therefore possible to make recommendations that could be applicable across BC institutions. While research within other jurisdictions within Canada may yield different results, the existing scholarship of information literacy teaching in Canada

does reveal some commonalities, as noted in the previous chapters, and suggests further research opportunities.

Summary of Contributions to the Research

This research has contributed to our understanding of information literacy teaching in BC higher education, with a specific focus on the application of critical information literacy practices. The mixed methods approach is distinct in its application when compared with the research conducted in Canada to date on the state of information literacy teaching in Canadian higher education. The longitudinal quantitative studies that have been conducted across Canadian higher education (Julien and Leckie, 1997; Julien, 2000; Julien 2005; Julien, Tan and Merillat 2013) provide library scholars with important information about the changing nature of information literacy teaching in the country. The research conducted in specific regions and provinces has further expanded knowledge about existing and developing practices, including in Alberta (Goebel, Neff and Mandeville, 2007); Atlantic Canada (Cull, 2005); Manitoba (Ducas and Michaud-Ostryk, 2003; Dakshinamurti and Braaksma 2005); and within specific Canadian institutions and programs (Bury, 2011; Reed, Kinder, and Farnum; Dunn and Xie, 2017). The teaching practices amongst British Columbian higher education librarians have now been revealed in depth through my research, and this can support a greater understanding of information literacy practices within Canada. At the same time, this research also builds on some of the significant studies conducted by American scholars, notably Downey's qualitative research into critical information literacy (2014) and Tewell's (2018) mixed methods study which investigated higher education librarians' engagement with critical information literacy in the development of their pedagogical practices. This study supports the ongoing development of our understanding of critical information literacy and its application in higher education teaching, as well as building on the understanding of teaching practices in Canadian higher education, generally.

Recommendations for Future Research

A number of areas would benefit from additional research. These include research which seeks to gain a better understanding of the relationship between institutional outcomes and library practices, as there is a gap in understanding of existing relationships or the implications of outcome measures upon local library practices. Other areas of research could include: gaining a better understanding of librarian education in Canada; of their exposure to pedagogy, teaching and learning theories in relation to library pedagogies; and the development of information literacy and decolonising practices within British Columbia. Research into the effectiveness of library practices within the province, and the implications of critical approaches to librarianship within this type of accountability regime, could be an interesting future contribution to the scholarship of Canadian librarianship.

Scholarship and research into the education of librarians related to theory, and the development of library theory, as it relates to higher education pedagogy generally, are other areas in need of further exploration, particularly within the BC context. Case studies into the practical application and measures of success of new models of library teaching and critical information literacy across library services in higher education would be particularly useful and would provide detailed insights into current thinking and practices. Research which seeks to find answers to the questions devised for this current study in other provinces and territories, or a longitudinal study within the BC public higher education environment in future years, are opportunities to further the scholarship of librarianship within Canada.

Finally, the current developments in policy and practices related to decolonising higher education in Canada would be other important areas of future research into library practices. Given the location-specific nature of indigenization, based on the particular peoples of the many territories that institutions reside upon, the scope of activities and the individual nature of responses to indigenization is vast. Research into indigenization practices,

including success and challenges, would be beneficial to the library community, would support academic institutions' mandate for decolonising, and would help to address the gaps identified in the Canadian Truth and Reconciliation Committee's *Calls to Action* (2012).

Conclusions

This research was developed and undertaken following discussions concerning information literacy teaching and library pedagogical developments in the scholarship of academic librarianship. Partly inspired by the publication of the ACRL *Framework for Information Literacy*, and discussions that have been evolving related to critical librarianship, the research is timely in that it begins to address a gap in our knowledge about and understanding of the information literacy teaching practices within British Columbia public higher education institutions. The overarching research question asked how librarians in BC higher education are applying critical information literacy in their practice, in an environment where new approaches to addressing social justice issues, and de-colonising or indigenizing the academy, are rising priorities. Participant librarians recognised the need to address these questions and concerns in considering how to apply new theoretical approaches to traditional libraries practices, including information literacy teaching.

The higher education library environment in BC is populated by dedicated and engaged librarians, staff and administrators. The librarians' interest in participating in the study, and the significant contributions of time provided by the willing participants, is evidence of their engagement in the topic of developing information literacy teaching. While the findings reveal a limited understanding of the concept of critical information literacy, the potential to develop a greater understanding of theories underlying library practices was recognised by the participants themselves. This potential led to the recommendations that have been provided in this chapter, many of which

arose from participants' responses to the survey questionnaire and the interviews with the research participants.

A number of specific recommendations have been made in this chapter. These include developing a local (provincial) definition of critical information literacy; developing a set of guidelines or a model to support the development of BC information literacy teaching; and working to improve the scholarship and research into library pedagogy and practices in higher education. Because there is not a central library authority, or an academic library association to lead academic library developments in Canada, librarians within British Columbia shared their willingness to welcome a more consistent approach to bringing information literacy and critical approaches to library practices at a provincial level. Cooperative approaches for librarians to share their knowledge, and the means to assist each other to apply the *ACRL Framework* as a common model for IL teaching, are pragmatic ways to address different knowledge and abilities across the BC public institutions. This approach could help to develop both the application of critical information literacy, and communicative methods for recognizing the work that librarians do in teaching across disciplines.

Through a common approach to IL teaching in BC, librarians could improve their ability to communicate their aims and expertise in support of learning outcomes within courses and across the institution. Seeking closer alignment with Teaching and Learning services offers one of the most effective partnerships within institutions, leading to improved understanding and value of the work of librarians as teachers in higher education. Administrators also play a significant role in supporting library pedagogical development, including critical information literacy teaching, and in communicating its importance within institutions. Findings from this current research study also reveal that institutions of all sizes, and in every part of the province, have the ability to contribute expertise or are willing to explore the developments in both critical information literacy teaching and the *ACRL Framework*. Strengthening the community of higher education library teachers could offer

a more consistent approach to information literacy teaching, while supporting those libraries with fewer resources to explore the potential for critical information literacy in their practices.

References

Accardi, M.T., Drabinski, E. & Kumbier, A. (2010). *Critical library instruction theories and methods*, Duluth, Minn.: Library Juice Press.

Altheide, D. & Johnson, J. (2011). Reflections on interpretive adequacy in qualitative research. In: Denzin, N., & Lincoln, Y. (Eds.) *The Sage handbook of qualitative research* (Fourth ed.). London: Sage.

American Library Association (ALA) (1989). *Presidential committee on information literacy: final report*. Available from:
<http://222.ala.org/acrl/publications/whitepapers/presidential>.

ALA (2006a). *Core values of librarianship*. Available from:
<http://www.ala.org/advocacy/intfreedom/corevalues>

ALA (2006b). *Library bill of rights*. Available from:
<http://www.ala.org/advocacy/intfreedom/librarybill>.

ALA (2015a). *Annotated bibliography of threshold concepts*. Available from:
<http://www.ala.org/acrl/issues/infolit/teaching/thresholdbib>

ALA (2015b). *Standards for accreditation of master's programs in library and information studies*. Available from:
http://www.ala.org/educationcareers/sites/ala.org.educationcareers/files/content/standards/Standards_2015_adopted_02-02-15.pdf

Association of College & Research Libraries (ACRL) (2000). Information Literacy Competency Standards for Higher Education. Available from:
<https://alair.ala.org/handle/11213/7668>

ACRL (2012). Task Force Recommendations. ACRL AC12 Doc 13.1
Available from:
http://www.ala.org/acrl/sites/ala.org.acrl/files/content/standards/ils_recomm.pdf

ACRL (2014). ACRL framework draft 2 (SE 14 Doc 14.1), Available from:
<https://alair.ala.org/bitstream/handle/11213/8657/Framework-for-IL-for-HE-archive.pdf?sequence=1&isAllowed=y>

ACRL (2015). *Framework for information literacy for higher education*. Available from: <http://www.ala.org/acrl/standards/ilframework>.

ACRL (2017). *Academic library impact: improving practice and essential areas to research*. Chicago: ACRL. Available from:

<http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/whitepapers/academiclib.pdf>

ACRL (2018). *Information literacy weblog*. Available from: <https://information-literacy.blogspot.com/2018/09/recent-articles-fake-news-using-acrl.html>

Australian and New Zealand Institute for Information Literacy (ANZIL) & Council of Australian University Librarians (CAUL) (2004). *Australian and New Zealand Information literacy framework*. Available from: <http://archive.caul.edu.au/info-literacy/InfoLiteracyFramework.pdf>

Australian Library and Information Association (2006). *Statement on information literacy for all Australians*. Available from: <https://www.alia.org.au/about-alia/policies-standards-and-guidelines/statement-information-literacy-all-australians>

Babu, B. (2008). Information literacy--competency standards and performance Indicators: An overview. *DESIDOC Journal of Library & Information Technology*, 28(2), 56–65.

Badke, W. (2011). Why information literacy is invisible. *Communications in Information Literacy*, 4(2), 129-141.

Badke, W. (2015). The framework for information literacy and theological education: introduction to the ACRL framework. *Theological Librarianship*, 8(2), 4-7.

Badke, W. (2017). Region: North America. In: ACRL Student Learning and Information Literacy Committee (Eds.). *Global perspectives on information literacy: Fostering a dialogue for international understanding*, pp.22-28. Available from: <http://acrl.libguides.com/slilc/home>

Baer, A. (2013). Critical information literacy in the college classroom: Exploring scholarly knowledge production through the digital humanities. In: Gregory, L. & Higgins, S., (Eds.) *Information literacy and social justice radical professional praxis*. Sacramento: Litwin Books. pp99-120.

Bakermans M.H. & Ziino Plotke R. (2018). Assessing information literacy instruction in interdisciplinary first year project-based courses with STEM students. *Library and Information Science Research*, 40 (2), 98-105.

Bales, S. (2017). *Social justice and library work: A guide to theory and practice*. Cambridge, MA: Chandos Publishing.

Bales, S., & Engle, L. (2012). The counterhegemonic academic librarian: A call to action. *Progressive Librarian*, (40), 16-40.

Ball, S.J. (1990). *Foucault and education: disciplines and knowledge*. New York: Routledge.

Banks, M. (2013). Time for a paradigm shift: the new ACRL information literacy Competency Standards for Higher Education. *Communications in Information Literacy*, 7(2), 184-188.

Banks M. (2016). Fighting fake news: how libraries can lead the way on media literacy. *American Libraries*. Available from: <https://americanlibrariesmagazine.org/2016/12/27/fighting-fake-news/>.

Battista, A., Ellenwood, D., Gregory, L., Higgins, S., Lilburn, J., Harker, Y., & Sweet, C. (2015). Seeking social justice in the ACRL Framework. *Communications in Information Literacy*, 9(2), 111-125.

Baer, A. (2016). Critical pedagogy, critical conversations: Expanding dialogue about critical library instruction through the lens of composition and rhetoric." *In the Library with the Lead Pipe*, 01 December 2016. Available at: <http://www.inthelibrarywiththeleadpipe.org/2016/critical-conversations/>

Bauder, J. & Rod, C. (2016). Crossing thresholds: Critical information literacy pedagogy and the ACRL Framework. *College & Undergraduate Libraries*, 23(3), 252-264.

BC Stats (2016). *Education & training*. Available from: <https://www2.gov.bc.ca/gov/content/data/statistics/people-population-community/education-training>.

Beilin, I. (2015). *Promoting and resisting student "success": critical information literacy instruction in the neoliberal academic library*. CAPAL 2015, Ottawa, Canada, June 2, 2015. Available from: http://academiccommons.columbia.edu/download/fedora_content/download/ac:186729/CONTENT/Promoting_and_Resisting_Student_Success_-_Ian_Beilin_-_text.pdf

Bell, S. (2013). Rethinking ACRL's Information Literacy Standards: The process begins. *ACRL Insider*. Available from: <https://www.acrl.ala.org/acrlinsider/archives/7329>

Benoit , G. (2002). Toward a critical theoretic perspective in information systems. *The Library Quarterly: Information, Community, Policy*, (72)4, 441-471.

Berg, C., Charles, L., Chudnick, S., Cook, H., Dalal, H., Dempsey, M., Dubicki, E., et al. (2015). An open letter regarding the Framework for Information Literacy for Higher Education, *ACRLog*, January 7, 2015, Available from: <http://acrlog.org/2015/01/07/an-open-letter-regarding-the-framework-for-information-literacyfor-higher-education/>.

Biddiscombe, R. (2000). The changing role of the information professional in support of learning and research. *Advances in Librarianship*, 23, 63-64.

Biemer, P. & Lyberg, L. (2003). *Introduction to survey quality*. Hoboken, N.J.: Wiley.

Bishop, E. (2014). Critical literacy: Bringing theory to praxis. *JCT (Online)*, 30(1), 51-63.

Blair, E. (2016). A reflexive exploration of two qualitative data coding techniques. *Journal of Methods and Measurement in the Social Sciences*, 6(1), 14-29.

Bombaro, C., Harris, P. & Odess-Harnish, K. (2016). A constellation to guide us: an interview with Lisa Janicke Hinchliffe about the Framework for Information Literacy for Higher Education. *Reference Services Review*, 44(4), 544–551.

Boon, S., Johnston, B. & Webber, S. (2007). A phenomenographic study of English faculty's conceptions of information literacy. *Journal of Documentation*, 63(2).

Boostrom, R. (2010). Hidden curriculum. In: Kridel, C. (Ed.), *Encyclopedia of curriculum studies*. Thousand Oaks, CA: SAGE Publications, Inc., pp. 440-440.

Bradley, C. (2013). Information literacy policy development in Canada: is it time? *Partnership: The Canadian Journal of Library and Information Practice and Research*, 8(2), 1-13.

Brannen, J. (2004). Working qualitatively and quantitatively. In: Seale, C., Garbo, G., Gubrium, J.F. & Silverman, D. (Eds.) *Qualitative research practice*. London: Sage, pp282-296.

Brasley, S., & Watts, M. (2008). Effective librarian and discipline faculty collaboration models for integrating information literacy into the fabric of an academic institution. *New Directions for Teaching and Learning*, 2008(114), 71-88.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.

Brinkmann, S. (2014). Unstructured and semi-structured interviewing. In: Leavy, P. (Ed.) *Oxford Handbook of Qualitative Research*. Oxford: Oxford University Press, Oxford Handbooks Online.

British Columbia Library Association (BCLA) (2018). BCLA values statement. Available from: <https://bclaconnect.ca/about/bcla-values-statement/>

British Columbia Ministry of Advanced Education, Skills & Training (2018). *Post-secondary education*. Available from: <https://www2.gov.bc.ca/gov/content/education-training/post-secondary-education/data-research>.

British Columbia Ministry of Education (2018). *Legislation & policy*. Available from: <https://www2.gov.bc.ca/gov/content/education-training/k-12/support/graduation?keyword=dogwood>.

Brookfield, S.D. (2005). *The Power of critical theory for adult learning and teaching*. Maidenhead: Open University Press.

Brown, K., & Malenfant, K. (2015). Academic library contributions to student success: documented practices from the field. Available from: http://www.ala.org/acrl/sites/ala.org/acrl/files/content/issues/value/contributions_report.pdf.

Bruce, C. (1997). *The seven faces of information literacy*. Adelaide, Australia: Auslib Press.

Bruce, C. (1998). The phenomenon of information literacy. *Higher Education Research & Development*, 17(1), 25-43.

Bruce, C. & Candy, P. (Eds.) (2000). *Information literacy around the world: advances in programs and research*. Wagga Wagga: Centre for Information Studies, Charles Sturt University.

Bruce, C. & Candy, P., Eds. (2015). *Information literacy around the world: advances in programs and research*. Wagga Wagga, Australia: Centre for Information Studies, Charles Sturt University.

Bruce, C, Edwards, S. & Lupton, M. (2006). Six frames for information literacy education: A conceptual framework for interpreting the relationships between theory and practice. *Innovation in Teaching and Learning in Information and Computer Sciences*, 5(1), 1–18.

Bryman, A., Bell, E. & Teevan, J. (2009). *Social research methods*. Oxford: Oxford University Press.

Bundy, A. ed. (2004). *Australia and New Zealand information literacy framework*, 2nd. ed. Adelaide, Australia: Australia and New Zealand Institute for Information Literacy. Available from: <http://www.literacyhub.org/documents/InfoLiteracyFramework.pdf>.

Bury, S. (2011). Faculty attitudes, perceptions and experiences of information literacy: a study across multiple disciplines at York University, Canada. *Journal of Information Literacy*, 5(1), 45-64.

Bury, S. (2017). Region: North America. In: ACRL Student Learning and Information Literacy Committee (Eds.). *Global perspectives on information literacy: Fostering a dialogue for international understanding*, pp.36-46. Available from: <http://acrl.libguides.com/slilc/home>

Buschman, J. (2018). The politics of academic libraries: Fake news, neutrality and ALA. *The Journal of Academic Librarianship*, 44(3), 430-431.

Bynoe, V., & Katz, A. (2018). Thinking outside the box: A critical literacy collaborative. *Reference Services Review*, 46(2), 264-271.

Canadian Library Association (CLA) (2018). *Library schools*. Available from: <http://cla.ca/careers/schools/library-schools/>

CLA (2008). *Statements: diversity and inclusion*. Available from <http://cla.ca/cla-at-work/position-statements/>

Candy, P. (2015). Mining in cyberia: researching information literacy for the digital age, In: Bruce, C. & Candy, P., (Eds.), *Information literacy around the world: advances in programs and research*, Wagga Wagga, Australia: Centre for Information Studies, Charles Sturt University, pp139-151.

Carlton, A. (2018). Are libraries neutral? President's program tackles heavy subject from multiple angles. February 12, 2018. Available from: <https://americanlibrariesmagazine.org/blogs/the-scoop/are-libraries-neutral/>.

Catts, R. (2015). Some issues in assessing information literacy, In: Bruce, C. & Candy, P., (Eds.), *Information literacy around the world: advances in programs and research*, Wagga Wagga, Australia: Centre for Information Studies, Charles Sturt University, pp271-283.

Catts, R. & Lau, J. (2008). Towards information literacy indicators: conceptual framework paper. Paris: UNESCO. Available from: <http://www.unesco.org/new/en/communication-and-information/resources/publications-and-communication-materials/publications/full-list/towards-information-literacy-indicators/>

Chandler, M. (2018). Critical information literacy: Foundations, inspiration, and ideas, by Annie Downey. *Canadian Journal of Academic Librarianship*, 4, 1-3.

Charmaz, K (2014). *Constructing grounded theory*, 2nd ed. Los Angeles: Sage Publications Inc.

Chartered Institute of Library and Information Professionals (CILIP) (2018a). *#Factsmatter*. Available from: <https://www.cilip.org.uk/page/FactsMatter>

CILIP. (2018b). *Fighting fake news with information literacy skills*. Available from: <https://www.cilip.org.uk/page/ILvsFakeNews>

CILIP, Information Literacy Group. (2018). *Definitions & models*. Available from: <https://infolit.org.uk/definitions-models/>

Chen, C., & Larsen, R. (2014). *Library and information sciences trends and research*. Berlin, Heidelberg: Springer.

Cohen, L. Manion, L. & K. Morrison (2011). *Research methods in education*. London: Routledge.

Cope, J. & Sanabria, J. (2014). Do we speak the same language? A study of faculty perceptions of information literacy. *Portal: Libraries and the Academy*, 14(4), 475-501.

Cote, M., Day, R. & De Peuter, G. (2007). *Utopian pedagogy: radical experiments against neoliberal globalization*. Toronto: University of Toronto Press.

Council of Post Secondary Library Directors (2018). *CPSLD statistics report 2016-2017*. Available from: <http://cpsld.ca/home/statistics>.

Cowan, S. & Eva, N. (2016). Changing our aim: infiltrating faculty with information literacy. *Communications in Information Literacy*, 10(2), 163-177.

Creed-Dikeogu, G. (2014). Exploring the revision of the ACRL Information Literacy Standards. *Kansas Library Association College & University Libraries Section Proceedings*, 4(2), 41-46.

Creswell J.W. (2011). Controversies in mixed methods research. In: Denzin, N., & Lincoln, Y. (Eds.) *The Sage handbook of qualitative research* (4th ed.). London: Sage.

Creswell, J.W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches*, 4th ed. Los Angeles: Sage Publications, Inc.

Creswell, J.W. & Creswell, J.D. (2018). *Research design: qualitative, quantitative and mixed methods approaches*, 5th ed. Los Angeles: Sage Publications.

Creswell, J.W. & Plano Clark, V.L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks: Sage Publications, Inc.

Cull, B. (2005). Voices in the wilderness: a report on academic information literacy instruction in Atlantic Canada. *Canadian Journal of Information and Library Science*, 29(1), 1-26.

Cumming-Potvin, W. (2013). "New basics" and literacies: Deepening reflexivity in qualitative research. *Qualitative Research Journal*, 13(2), 214-230.

Dakshinamurti, G. & Braaksma, B. (2005). Preparing academic librarians for a changing role: A case of a Canadian information literacy programme. *IFLA CPDWL; Satellite Meeting, Oslo, Norway*. Available from: <https://archive.ifla.org/IV/ifla71/papers/cpdwl-Dakshinamurti-Braaksma.pdf>

Darder, A., Torres, R., & Baltodano, M. (2017). *The critical pedagogy reader* (3rd ed.). New York: Routledge.

Dempsey, M., Dalal, H., Dokus, L., Charles, L., & Scharf, D. (2015). Continuing the conversation: questions about the Framework. *Communications in Information Literacy*, 9(2), 164-175.

Denzin, Norman K. (2012). Triangulation 2.0. *Journal of Mixed Methods Research*, 6(2), 80-88.

Derakhshan, M., Hassanzadeh, M. & Nazari, M. (2015). Developing information literate librarians: A study of LIS academics' pedagogical approaches in the development of information literacy competencies. *The Journal of Academic Librarianship*, 41(6), 777-785.

Dienes, Z., & Perner, J. (1999). A theory of implicit and explicit knowledge. *Behavioral and Brain Sciences*, 22(5), 735-808.

Downey, A. (2016). *Critical information literacy: foundations, inspiration, and ideas*. Sacramento: Library Juice Press.

Drabinski, E. (2014). Toward a kairos of library instruction. *The Journal of Academic Librarianship*, 40(5), 480-485.

Drabinski, E. (2017). A kairos of the critical: Teaching critically in a time of compliance. *Communications in Information Literacy*, 11(1), 76-94.

Drabinski, E. & Sitar, M. (2016). What standards do and what they don't. In: Pagowsky, N. & McElroy, K. (Eds.) *The Critical Library Pedagogy Handbook*, Vol. 1. Chicago: ALA, pp.53-64.

Drake, G. (2013). The ethical and methodological challenges of social work research with participants who fear retribution: To 'do no harm'. *Qualitative Social Work*. 13(2), 304-319.

Drisko, J. & Maschi, T. (Eds.) (2015). *Content Analysis*. Oxford: Oxford University Press.

Ducas, A., & Michaud-Oysttryk, N. (2004). Toward a new enterprise: Capitalizing on the faculty / librarian partnership. *College & Research Libraries*, 64(4), 334-348.

Dunn, L. K. & Xie, S. (2017). Information literacy instruction in Canadian undergraduate science education 2000-2015: A literature review. *Canadian Journal of Information and Library Science* 41(4), 263-284.

Dwyer, S. and Buckle, J. (2009). The space between: on being an insider-outsider in qualitative research. *International Journal of Qualitative Methods*. 8(1), 54-63.

Eisenberg, M., Lowe, C.A. & Spitzer, K.L. (2004). *Information literacy: essential skills for the information age*. Westport, Conn.: Libraries Unlimited.

Ellis, C., Johnson, F., & Rowley, J. (2017). Promoting information literacy: Perspectives from UK universities. *Library Hi Tech*, 35(1), 53-70.

Elmborg, J. (2006). Critical information literacy: implications for instructional practice. *The Journal of Academic Librarianship*, 32(2), 192-199.

Elmborg, J. (2016). Forward. In: Pagowsky, N. & Mcelroy, K. (Eds.) *Critical library pedagogy: essays and workbook activities*. Chicago: Association of College and Research Libraries.

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis. *SAGE Open*, 4(1), 1-10.

Estable, A., MacLean, L., & Meyer, M. (2004). Improving accuracy of transcripts in qualitative research. *Qualitative Health Research*, 14(1), 113-123.

Farkas, M. (2009). Who should teach library instruction? *Information Wants to be Free*. Available from:
<https://meredith.wolfwater.com/wordpress/2009/10/01/who-should-teach-library-instruction/>

Farrell, R. & Badke, W. (2015). Situating information literacy in the disciplines. *Reference Services Review*, 43 (2), 319.

Finlay, L. (2012). Five lenses for the reflexive interviewer. In: Gubrium, J.F., Holstein, J. Marvasti, A.M & Mckinney, K. (Eds.) *The Sage handbook of interview research: The complexity of the craft*. Thousand Oaks, CA: Sage Publications Ltd., pp. 317-332

Finlay, L & Gough, B. (Eds.) (2008). *Reflexivity: a practical guide for researchers in health and social sciences*. Oxford: Blackwell's.

Fister, B. (2006). Smoke and mirrors: finding order in a chaotic world. *Research Strategies*, 20(3), 99–107.

Fister, B. (2013). Practicing freedom in the digital library. *Library Journal*, 138(13), 29.

Fister, B. (2015). Standards, frameworks, the work we must do. *Library Journal*, 140(9), 16.

Fister, B. (2017). The warp and weft of information literacy: Changing contexts, enduring challenges. *Journal of Information Literacy*, 11(1), 68-79.

Fjallbrant, N. (2015). The development of web-based programs to support information literacy courses. In: Bruce, C. & Candy, P., (Eds.), *Information*

literacy around the world: advances in programs and research, Wagga Wagga, Australia: Centre for Information Studies, Charles Sturt University, pp25-36.

Foasberg, N. (2015). From standards to frameworks for IL: how the ACRL Framework addresses critiques of the standard. *Portal: Libraries and the Academy*, 15(4), 699-717.

Foster, A. (2006). Information literacy for the information profession: experiences from Aberystwyth. *Aslib Proceedings*, 58(6), 488-501.

Fowler, F. J. (2009). *Applied social research methods: Survey research methods*, 4th ed. Thousand Oaks, CA: SAGE Publications Ltd.

Freire, P. (2000). *Pedagogy of the oppressed*. New York: Bloomsbury Academic.

Freire, P. & Macedo, D. (1987). *Literacy: reading the word and the world*. South Hadley, Massachusetts: Bergin & Garvey Publishers, Inc.

Gage, R. A. (2004). Henry Giroux's abandoned generation & critical librarianship: A review article. *Progressive Librarian*, (23), 65.

Garcia, A., Luke, A. & Seglem, R. (2018). Looking at the *next* 20 years of multiliteracies: a discussion with Allan Luke. *Theory Into Practice*, 57:1, 72-78.

Garcia, K. & ACRL (2015). Keeping up with... critical librarianship. Available from: http://www.ala.org/acrl/publications/keeping_up_with/critlib (Accessed October 5, 2018)

Genoni, P. & Partridge, J. (2015) .Personal research information management: information literacy and the research student, In: Bruce, C. & Candy, P., (Eds.), *Information literacy around the world: advances in programs and research*, Wagga Wagga, Australia: Centre for Information Studies, Charles Sturt University, pp223-235.

Giroux, H.A. (1983). Critical theory and schooling: implications for the development of a radical pedagogy. *Discourse: Studies in the Cultural Politics of Education*, 3(2), 1-21.

Giroux, H.A. (2003). Utopian thinking under the sign of neoliberalism: towards a critical pedagogy of educated hope. *Democracy & Nature* 9(1), 91-105.

Giroux, H.A. (2004). Critical pedagogy and the postmodern/modern divide: towards a pedagogy of democratization. *Teacher Education Quarterly* 31(1), 31-47.

Giroux, H.A. (2007). Utopian thinking in dangerous times: critical pedagogy and the project of educated hope, IN: Cote, M., Day, R.J.F. & De Peuter, G., (Eds.) *Utopian pedagogy: radical experiments against neoliberal globalization*. Toronto: University of Toronto Press, pp. 25-42.

Giroux, H.A. (2011). *On critical pedagogy*. New York: Bloomsbury Academic.

Giroux, H.A. (2017). Critical theory and educational practice. In: Darder, A. Torres, R. & Boltodano, M. (Eds.) *The critical pedagogy reader*, 3rd ed. New York: Routledge, pp. 31-55.

Goebel, N., Neff, P., & Mandeville, A. (2007). Assessment within the Augustana model of undergraduate discipline-specific information literacy credit courses. *Public Services Quarterly*, 3(1-2), 165-189.

Goldstein, S. (2015) *Perceptions of the SONUL Seven Pillars of Information Literacy: A brief review*. London: SCONUL. Available from: <https://www.sconul.ac.uk/sites/default/files/documents/Seven%20Pillars%20Review%202015.pdf>

Government of British Columbia (2010). *BC Government: skills for growth strategy*. Available from: http://www.jtst.gov.bc.ca/skills_for_growth/

Government of British Columbia (2014). *B.C.'s skills for jobs blueprint: re-engineering education and training*. Available from: <https://www.workbc.ca/Training-Education/B-C-s-Skills-for-Jobs-Blueprint/Learn-about-Blueprint.aspx>

Government of Canada (2017). *EduCanada fair 2017 – Fact sheet*. Available from: https://www.canadainternational.gc.ca/hong_kong/highlights-faits/2017/fact-sheet-fiche-informations-eduCanada-2017.aspx?lang=eng#a5

Grafstein, A. (2002). A discipline-based approach to information literacy. *The Journal of Academic Librarianship*, 28(4), 197–204.

Grafstein, A. (2017). Information literacy and critical thinking: context and practice, In: Sales, D. & Pinto, M. (Eds.) *Pathways into information literacy and communities of practice: Teaching approaches and case studies*. New York: Elsevier.

Graneheim, U., Lindgren, B., & Lundman, B. (2017). Methodological challenges in qualitative content analysis: A discussion paper. *Nurse Education Today*, 56, 29.

Graves, D., McGowan, M., & Sweet, D. (2010). Making a home: critical pedagogy in a library internship program for high school students. In: Accardi, M. Drabinski, & Kumbier (Eds.) *Critical library instruction: Theories & methods*. Duluth, Minnesota: Library Juice Press, pp.161-175.

- Gregory, L. & Higgins, S. (2013). Introduction. In: Higgins, S. & Gregory, L. (Eds.) *Information literacy and social justice: Radical professional praxis*. Sacramento: Litwin Books, pp.1-11
- Gregory, L. & Higgins, S. (2017). Reorienting an information literacy program towards social justice: mapping the core values of librarianship to the ACRL Framework. *Communications in Information Literacy*. 11(1), 42-54.
- Griffiths, M. (1998). *Educational research for social justice*. Ballmoor, Buckingham: Open University Press.
- Griffiths, M. (2009). Social justice. In: Wallace, S. (Ed.), *A dictionary of education*. Oxford: Oxford University Press.
- Gross, M. Latham, D. & Julien, H. (2018). What the Framework means to me: attitudes of academic librarians toward the ACRL Framework for Information Literacy for Higher Education. *Library and Information Science Research*, 40(3-4), 262-268.
- Guba, E. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *ECTJ*, 29(2), 75-91.
- Gubrium, J., Holstein, J., Marvasti, A. & McKinney, K. (2012). *The Sage handbook of interview research: The complexity of the craft* (2nd ed.). Thousand Oaks, CA: Sage Publications Inc.
- Guest, K., MacQueen, E., & Namey, G. (2012) *Applied thematic analysis*. Thousand Oaks, California: SAGE Publications.
- Gulbraar, K. (2005). Developing for the new academic library function: Knowledge and skills requirements among library personnel and teaching faculty. In: Genomi, P. & Walton, G. (Eds.) *Continuing Professional Development – Preparing for New Roles in Libraries: A Voyage of Discovery. Sixth World Conference on Continuing Professional Development and Workplace Learning for the Library and Information Professions*, pp.53–74.
- Gullikson, Shelley. (2006). Faculty perceptions of ACRL's Information Literacy Competency Standards for Higher Education. *Journal of Academic Librarianship*, 32(6), 583-592.
- Hammersley, M. (2010). Reproducing or constructing? Some questions about transcription in social research. *Qualitative Research*, 10(5), 553-569.
- Harris, B. (2013a). The New ACRL Information Literacy Competency Standards: revising reception. *Communications in Information Literacy*, 7(2), 139-145.
- Harris, B. (2013b). Subversive Infusions: Strategies for the integration of information literacy across the curriculum. *Journal of Academic Librarianship*, 39(2), 175-180.

Hensley, M. & Davis-Kahl (Eds.) (2017). *Undergraduate research and the academic librarian: Case studies and best practices*. Chicago: Association of College and Research Libraries.

Hesse-Biber, S.N. (2010). *Mixed methods research: merging theory with practice*. New York: Guilford Press.

Hicks, A., Nicholson, K. & Seale, M. (2018). Making the case for a sociocultural perspective on information literacy. In: Nicholson, K & Seale, M, (Eds.) *The Politics of Theory and the Practice of Critical Librarianship*. Sacramento, CA: Library Juice Press, pp. 69–85.

Hodge, M. (2015). 14 - Pedagogy for librarians. In *Skills to Make a Librarian* (pp. 155-174).

Holliday, Wendy. (2017). Frame works: Using metaphor in theory and practice in information literacy. *Communications in Information Literacy*, 11(1), 4-20.

Holloway, I. & Todres, L. (2003). The status of method: flexibility, consistency and coherence. *Qualitative Research*, 3(3), pp.345–357.

Holstein, J., & Gubrium, J. (1995). The active interview. *Qualitative research methods*. Thousand Oaks, CA.: SAGE.

hooks, b. (1994). *Teaching to transgress: Education as the practice of freedom*. New York: Routledge.

hooks, b. (2017). Confronting class in the classroom. In: Darder, A., Torres, R. & Baltodano, M. (Eds.) *The critical pedagogy reader*, 3rd. ed., pp.181-187.

Hooper, M.D. & Scharf, E. (2017). Connecting and reflecting: transformative learning in academic libraries. *Journal of Transformative Education*, 15(1) 79-94.

Horton, F.W. (2007). *Understanding information literacy: A Primer*. Paris: UNESCO. Available from:
<https://unesdoc.unesco.org/ark:/48223/pf0000157020>

Horton, F.W. (2013). *Overview of information literacy resources worldwide*. Paris: UNESCO. Available from:
<http://www.unesco.org/new/en/communication-and-information/resources/publications-and-communication-materials/publications/full-list/overview-of-information-literacy-resources-worldwide/>

Hsieh, H., & Shannon, S. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.

Hulett, H., Corbin, J., Karasmanis, S., Robertson, T., Salisbury, F., & Peseta, T. (2013). Information literacy at university: a toolkit for readiness and measuring impact. *Australian Academic & Research Libraries*, 44(3), 151-162.

Hursh, D. (2017). Neoliberalism and education policy. In: Peters, M. (Ed.) *Encyclopedia of educational philosophy and theory*. Singapore: Springer, pp1523-1529.

Hutchins, R.M. (1968). *The learning society*. New York: Encyclopaedia Britannica, Inc.

The information literacy wiki. Available from:
http://infolit.wikia.com/wiki/Information_Literacy.

Inskip, C. (2015). Information literacy in LIS education: exploring the student view. *Journal of Information Literacy*, Journal of Information Literacy, 9 (2).

International Federation of Library Associations (IFLA) and UNESCO (2003). *The Prague declaration*. Available from:
https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=2ahUKEwjf_I7huNPfAhVHHDQIHYYWEAZUQFjACegQIBxAC&url=http%3A%2F%2Fwww.unesco.org%2Fnew%2Ffileadmin%2FMULTIMEDIA%2FHQ%2FCI%2FCI%2Fpdf%2FPragueDeclaration.pdf&usg=AOvVaw16KQuqA_-KWRCXDIObGmO-

IFLA and UNESCO (2005). *The Alexandria proclamation*. The Hague: IFLA. Available from <http://www.ifla.org/publications/beacons-of-the-information-society-the-alexandria-proclamation-on-information-literacy>

IFLA (2011). *IFLA media and information literacy recommendations*. Available from: <https://www.ifla.org/publications/ifla-media-and-information-literacy-recommendations>

IFLA (2017). *IFLA Statement on digital literacy*. Available from:
<https://www.ifla.org/publications/node/11586>.

IFLA (2018). *Statement on Fake News*. The Hague: IFLA. Available from:
<https://www.ifla.org/files/assets/faife/statements/ifla-statement-on-fake-news.pdf>

Irving, C. (2011). National information literacy framework (Scotland): pioneering work to influence policy making or tinkering at the edges? *Library Trends*, 60(2), 419-438.

Jackman, L., & Weiner, S. (2017). The rescinding of the ACRL 2000 Information Literacy Competency Standards for Higher Education—really?? *College & Undergraduate Libraries*, 24(1), 117-119.

- Jacobs, H. (2008). Information literacy and reflective pedagogical praxis. *Journal of Academic Librarianship*, 34(3), 256-62.
- Jacobs, H. (2014). Pedagogies of possibility within the disciplines: critical information literacy and literatures in English. *Communications in Information Literacy* 8(2), 192-207.
- Jacobs, H. & Berg, S. (2011). Reconnecting information literacy policy with the core values of librarianship. *Library Trends*, 60(2), 383-394.
- Jacobson, T. & Gibson, C. (2015). First thoughts on implementing the Framework for Information Literacy. *Communications in Information Literacy*, 9(2), 102-110.
- Jaeger, P., Gorham, U., Bertot, J., & Sarin, L. (2013). Democracy, neutrality, and value demonstration in the age of austerity. *The Library Quarterly: Information, Community, Policy*, 83(4), 368-382.
- James, N. & Busher, H. (2009). *Online interviewing*. London: Sage Publications Ltd.
- James, N. & Busher, H. (2012). Internet interviewing. In: Gubrium, J.F. Holstein, J. & Marvasti, A. B. (Eds.) *The Sage handbook of interview research: The complexity of the craft*. Thousand Oaks, CA: SAGE Publications, Inc., pp177-192.
- Jandrić P. (2018). Post-truth and critical pedagogy of trust. In: Peters M.A., Rider S., Hyvönen M., Besley T. (Eds.) *Post-truth, fake news: Viral modernity & higher education*. Singapore: Springer, pp101-111.
- Janks, H., (2010). *Literacy and power*. New York: Routledge.
- Janks, H. (2013). Critical literacy in teaching and research. *Education Inquiry*, 4(2), 225-242.
- Janks, H., (2014). Critical literacy's ongoing importance for education. *Journal of Adolescent & Adult Literacy*, 57(5), pp.349–356.
- Janks, H. (2017). Critical literacy and the social justice project of education. *English Teaching-Practice And Critique*, 16(2), 132-144.
- Jensen, R. (2004). The myth of the neutral professional. *Progressive Librarian*, (24), 28.
- Johnson, R.B., & Onwuegbuzie, A.J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.

- Johnston, B. & Webber, S. (2003). Information literacy in higher education. *Studies in Higher Education* 28(3), 335-352.
- Jootun, D., Mcghee, G. & Marland, G. (2009). Reflexivity: promoting rigour in qualitative research. *Nursing Standard*, 23(23), 42-46.
- Joyce, S (2008). A few gates redux: An examination of the social responsibilities debate in the early 1970s and 1990s. In: Lewis, A. (Ed.) *Questioning library neutrality: Essays from Progressive Librarian*. London: Litwin Books, pp33-66.
- Julien, H. (2000). Information literacy instruction in Canadian academic libraries: longitudinal trends and international comparisons. *College & Research Libraries* 61 (6): 510-23.
- Julien, H. (2005). A longitudinal analysis of information literacy instruction in Canadian academic libraries. *Canadian Journal of Information and Library Science*, 29(3): 289-313.
- Julien, H. & Leckie, G. (1997). Bibliographic instruction trends in Canadian academic libraries. *Canadian Journal of Information and Library Science* 22, 1-15.
- Julien, H. & Pecoskie, J. (2009). Librarians' experiences of the teaching role: Grounded in campus relationships.(Report). *Library and Information Science Research*, 31(3), 149.
- Julien, H., Tan, M. & Merillat, S. (2013). Instruction for information literacy in Canadian academic libraries: a longitudinal analysis of aims, methods and success. *The Canadian Journal of Information and Library Science*. 37(2), 81-102.
- Junisbai, Lowe & Tagge (2016) A Pragmatic and Flexible Approach to Information Literacy: Findings from a Three-Year Study of Faculty-Librarian Collaboration. *The Journal of Academic Librarianship*, 42(5), pp.604–611.
- Kahn, P. (2015). Critical perspectives on methodology in pedagogic research. *Teaching in Higher Education*, 20(4), 442-454.
- Kapitzke, C. (2003). Information literacy: a positivist epistemology and a politics of outformation. *Educational Theory*, 52(1), 37-53.
- Kazmer, M. & Xie, B. (2008). Qualitative interviewing in internet studies: playing with the media, playing with the method. *Information, Community and Society*. 11(2), 257-278.
- Kellner, D. & Share, J. (2007a). Critical media literacy is not an option. *Learning Inquiry* 1(1), 59-69.

Kellner, D. & Share, J. (2007b). Critical media literacy: crucial policy choices for a twenty-first-century democracy. *Policy Futures in Education*, 5(1), 59-69.

Kelser, B.E. (2014). Reimagining information literacy competencies. *Information Today* 31(7), 1, 28-29.

Kemp, J. (2006). Isn't being a librarian enough? Librarians as classroom teachers. *College and Undergraduate Libraries*, 13 (3) (2006), 3-23.

Koltay, T. Špiranec, S. & Kervalics, L. (2016a). The nature of information literacy. IN: Koltay, T. Špiranec, S. & Kervalics, L. *Research 2.0 and the future of information literacy*. Amsterdam: Chandos Publishing, pp 61-110.

Koltay, T. Špiranec, S. & Kervalics, L. (2016b). Transformations of information literacy: from bookshelves to the Web 2.0. In: Koltay, T. Špiranec, S. & Kervalics, L. *Research 2.0 and the Future of Information Literacy*, Amsterdam: Chandos Publishing, pp.111-129.

Kos D., Špiranec S. (2014). Debating Transformative approaches to information literacy education: a critical look at the transformative learning theory. In: Kurbanoglu S., Špiranec S., Grassian E., Mizrahi D., Catts R. (Eds) *Information Literacy. Lifelong Learning and Digital Citizenship in the 21st Century. ECIL 2014. Communications in Computer and Information Science*, 492, pp.427-435

Kos D., Špiranec S. (2015). Understanding the field of critical information literacy: a descriptive analysis of scientific articles. IN: Kurbanoglu S., Boustany J., Špiranec S., Grassian E., Mizrahi D., Roy L. (Eds) *Information Literacy: Moving toward sustainability. ECIL 2015. Communications in Computer and Information Science*, 552.

Kutner, L. & Armstrong, A. (2012). Rethinking information literacy in a globalized world. *Communications in Information Literacy*, 6(1), 24-33.

Ladenson, S. (2010). Paradigm shift: utilizing critical feminist pedagogy in library instruction. IN: Accardi, M., Drabinski, E., & Kumbier, A. (Eds.) *Critical library instruction theories and methods*. Duluth, Minn.: Library Juice Press, pp105-112.

Lau, J. (2006). *Guidelines on information literacy and lifelong Learning*. Available at: <https://www.ifla.org/files/assets/information-literacy/publications/ifla-guidelines-en.pdf>.

Lea, M.R. & Street, B.V. (2006). The "academic literacies" model: theory and applications. *Theory into Practice* 45(4), 368-377.

Leaning, M. (2017). *Media and information literacy: an integrated approach for the 21st Century*, Cambridge, MA: Chandos Publishing is an imprint of Elsevier.

Leckie, G. & Buschman, J. (2010). Introduction: the necessity for theoretically informed critique in library and information science (LIS). In: Leckie, G., Given, L. & Buschman, J. (Eds.) *Critical Theory for Library and Information Science: Exploring the Social from across the Disciplines*. Santa Barbara, CA: Libraries Unlimited, pp.vii-xxii.

Lewis, A. (2008). *Questioning library neutrality essays from Progressive Librarian*. Duluth, Minn.: Library Juice Press.

Lilburn, J. (2007). Challenging the conditions that make alternatives necessary: Librarians, the news media and the information literate citizen. *Progressive Librarian*, (30), 3-17,103.

Lorenz, W. (2014). The emergence of social justice in the west. In: Reisch, M. (Ed.) *The Routledge international handbook of social justice*. New York: Routledge, pp.14-26.

Lua, G., Higgins, S. & Samek, T. (Eds.) (2013). *Information literacy and social justice: radical professional praxis*. Sacramento, CA: Litwin Books.

Luetkenhaus, H, Hvizdak, E., Johnson, C. & Schiller, N. (2017). Measuring library impacts through first year course assessment. *Communications in Information Literacy*, 11(2), 339-353.

Luke A. (2004). On the material consequences of literacy. *Language and Education*, 18(4), 331-335.

Luke, A. (2012). Critical literacy: foundational notes. *Theory into Practice*, 51(1), 4-11.

Luke, A. & Kapitzke, C. (1999). Literacies and libraries: archives and cybraries. *Pedagogy, Culture & Society* 7(3), 467-491

Lyotard, J.F. (1984). *The postmodern condition: A report on knowledge*. Bennington, G. & Massumi, B., translators. Minneapolis: The University of Minnesota Press.

Macfarlane, B. (2009). *Researching with integrity: The ethics of academic enquiry*. New York, N.Y.: Routledge.

Mackey, T. & Jacobson, T. (2011). Reframing information literacy as a metaliteracy. *College & Research Libraries*, 72(1), 62-78.

MacLean, L., Meyer, M. & Estable, A. (2004). Improving accuracy of transcripts in qualitative research. *Qualitative Health Research* 14(1), pp.113-123

Mann, S. (2016). *The Research Interview: Reflective practice and reflexivity in research processes*. London: Palgrave Macmillan UK.

- Margolin, S. & Hayden, W. (2015). Beyond mechanics: reframing the pedagogy and development of information literacy teaching tools. *The Journal of Academic Librarianship*, 41(5), 602-612.
- Markle, D., West, R., & Rich, P. (2011). Beyond transcription: technology, change, and refinement of method. *Forum: Qualitative Social Research*, 12(3), N/a.
- Martin, J. (2013). Refreshing information literacy: Learning from recent British information literacy models. *Communications in Information Literacy*, 7(2), 114-127.
- Maxwell, J. (2013). *Qualitative research design: An interactive approach* (3rd. ed.). Thousand Oaks, Calif.: Sage Publications.
- Mays, D.A. (2016). Using ACRL's Framework to support the evolving needs of today's college students. *College & Undergraduate Libraries*, 23(4), 353-362.
- McCook, K., & Phenix, K. (2007). Public libraries and human rights. *Public Library Quarterly*, 25(1-2), 57-73.
- McGinness, C. (2011). *Becoming confident teachers: A guide for academic librarians*. Oxford: Chandos Publishing.
- McLaren, P. (2017). Critical theory and educational practice. In: Darder, A. Torres, R. & Boltodano, M. (Eds.) *The critical pedagogy reader*, 3rd. ed. New York: Routledge, pp.56-78.
- McLaren, P. & Crawford, J. (2010). Critical pedagogy. In: C. Kridel (Ed.), *Encyclopedia of curriculum studies*. Thousand Oaks, CA: Sage Publications, Inc., pp148-149.
- McLuhan, M. (1960). *Understanding new media*. National Association of Educational Broadcasters.
- McNicol, S. (2016). *Critical literacy for information professionals*. London: Facet Publishing.
- Merrett, C. (2010). Social justice. In: Warf, B. (Ed.) *Encyclopedia of geography*. Sage Publications, pp2572-2574.
- Miller, B. (2010). Skills for sale: what is being commodified in higher education? *Journal of Further and Higher Education* 34(2), 199-206.
- Mirtz, R. (2010). Disintermediation and resistance: Girous and radical praxis in the library. In: Accardi, M., Drabinski, E., & Kumbier, A. (Eds.) *Critical library instruction theories and methods*. Duluth, Minn.: Library Juice Press, pp293-304.

- Mishler, E. (1986). *Research interviewing : Context and narrative*. Cambridge, Mass.: Harvard University Press.
- Morales, M. Knowles, E. & Bourg, C. (2014). Diversity, social justice, and the future of libraries. *Libraries and the Academy* 14(3): 439-451.
- Mounce, M. (2010) Working together: Academic librarians and faculty collaborating to improve students' information literacy skills: A literature review 2000–2009. *The Reference Librarian*, 51(4), 300-320.
- Mutch, A. (2015). Information literacy: a critical realist perspective, In: Bruce, C. & Candy, P., (Eds.) *Information literacy around the world: Advances in programs and research*. Wagga Wagga, Australia: Centre for Information Studies, Charles Sturt University, pp154-162.
- New London Group (1996). A pedagogy of multiliteracies: designing social futures. *The Routledge Reader on Writing Centers and New Media*. New York: Routledge, pp29-54.
- Nicholson, K. (2014). Information literacy as a situated practice in the neoliberal university. *Proceedings of the Annual Conference of the Canadian Association for Information Science*. Available from: <http://www.cais-acsi.ca/ojs/index.php/cais/article/view/901>
- Nilson, C. (2012). Faculty perceptions of librarian-led information literacy instruction in postsecondary education. IFLA World Library and Information Congress, 79th IFLA General Conference and Assembly. Available from: <https://www.ifla.org/past-wlic/2012/105-nilsen-en.pdf>
- Norris, S.P. & Philips, L.M., Eds. (1990). *Foundations of Literacy Policy in Canada*. Calgary: Detselig Enterprises Limited.
- Oakleaf, M. & Kaske, N. (2009). Guiding questions for assessing information literacy in higher education. *Portal: Libraries and the Academy*, 9(2), 273-286.
- Oliver, D. Serovich, J. & Mason, T. (2005). Constraints and opportunities with interview transcription: Towards reflection in qualitative research. *Social Forces*, 84(2), 1273-1289.
- The Open University (2012). Digital and information literacy framework. Available from: http://www.open.ac.uk/libraryservices/pages/dilframework/cc_licence.
- The Organization for Economic Co-operation and Development (OECD) and Statistics Canada (2000). *Literacy in the information age: final report of the international adult literacy survey*. Paris: OECD and Statistics Canada. Available from: <http://www.oecd.org/edu/skills-beyond-school/41529765.pdf>

OECD (1996). *The knowledge based economy*. Paris: OECD.

OECD (2000). *Learning to bridge the digital divide*. Paris: OECD.

OECD (2003). *Literacy skills for the world of tomorrow – further results from Pisa 2000*. Paris: OECD.

OECD (2016). Canada - country note - *education at a glance 2016: OECD indicators*. Available from:
https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=2ahUKEwiVocng3NffAhWrHzQIHRIAA0cQFjABegQIBBAC&url=http%3A%2F%2Fgpseducation.oecd.org%2Fcontent%2Feagcountrynotes%2Feag2016_cn_can.pdf&usg=AOvVaw0hHjXorCPd1JA6zE4IOhyq

OECD (2018). Country statistical profile: Canada 2018/4. *Country statistical profiles: Key tables from OECD*, OECD Publishing, Paris. Available from:
<https://doi.org/10.1787/csp-can-table-2018-4-en>.

Pagowsky, N. & McElroy, K. (2016). Introduction. In: *The critical library pedagogy handbook*, Vol. 1. Chicago: ALA, pp xvii-xxi.

Pankle, E. & Coleman, J. (2010). "There's nothing on my topic!" Using the theories of Oscar Wilde and Henry Giroux to develop critical pedagogy for library instruction. In: Accardi, M., Drabinski, E., & Kumbier, A. (Eds.). *Critical Library Instruction: Theories and Methods*. Duluth, Minn.: Library Juice Press, pp3-12.

Phenix, K. (2005). Human rights and librarians. *Reference & User Services Quarterly*, 45(1), 23-26.

Pinto, M., Cordon, A. & Díaz, R. G. (2010). Thirty years of information literacy (1977—2007): A terminological, conceptual and statistical analysis. *Journal of Librarianship and Information Science*, 42(1), 3–19.

Porfilio, B. & Ford, D. (2015). *Leaders in Critical Pedagogy*. Rotterdam: Sense.

Porterfield, J. (2018). Overcoming challenges to critical information literacy: Primary source analysis as consciousness-raising. *Pennsylvania Libraries: Research & Practice* 6(2), 106-12.

Portmann, C. & Roush, A. (2004). Assessing the effects of library instruction. *Journal of Academic Librarianship*, 30(6), 461-465.

Purdue, J. (2003). Stories, not information: Transforming information literacy. *Portal: Libraries and the Academy*, 3(2), 653-662.

Prior, L. (2014). Content analysis. IN: Leavy, P. (Ed.), *The Oxford handbook of qualitative research*. Oxford: Oxford University Press. Available from:

<http://www.oxfordhandbooks.com.ezproxy.is.ed.ac.uk/view/10.1093/oxfordhb/9780199811755.001.0001/oxfordhb-9780199811755-e-008>.

Public Sector Employers Association (PSEA) (2018). *Who we are*. Available from: <https://www.psea.bc.ca/about-us/who-we-are>.

Quarton, B. (2014). Teaching in the margins. In: Morrone, M. (Ed.) *Informed Agitation: Library and Information Skills in Social Justice Movements and Beyond*. Sacramento, CA: Litwin Books, pp55-70.

Quinn, K. & Bates, J. (2017). Resisting neoliberalism: the challenge of activist librarianship in English Higher Education. *Journal of Documentation*, 73(2), 317–335.

Radomski, N. (2015). Framing information literacy: the University of Ballarat experience, In: Bruce, C. & Candy, P., (Eds.) *Information literacy around the world: Advances in programs and research*. Wagga Wagga, Australia: Centre for Information Studies, Charles Sturt University, pp67-81.

Reed, M., Kinder, D., & Farnum, C. (2007). Collaboration between librarians and teaching faculty to teach information literacy at one Ontario university: Experiences and outcomes. *Journal of Information Literacy*, 1(3), 46.

Reeve, A. (2009). Social justice. In: McLean, I. and McMillan, A. (Eds.), *The Concise Oxford dictionary of politics*, 3rd ed. Oxford: Oxford University Press.

Reisch, M. (2014). Introduction. In: Reisch, M. (Ed.). *The Routledge international handbook of social justice*. New York: Routledge, pp1-5.

Riach, K. (2009). Exploring participant-centred reflexivity in the research interview. *Sociology*, 43(2), 356-370.

Rinne, A. (2017). The new Framework: a truth-less construction just waiting to be scrapped? *Reference Services Review*, Vol. 45(1), 54–66.

Rioux, K. (2010). Metatheory in library and information science: A nascent social justice approach. *Journal of Education for Library and Information Science*. 51(1), 9-17.

Rockman, I. F. (2002). Strengthening connections between information literacy, general education, and assessment efforts. *Library Trends* 51(2), 185-198.

Rosenzweig, M. (1991). Politics and anti-politics in librarianship. *Progressive Librarian*, 3, 2.

Ryan, P. & Sloniowski, L. (2013). The public academic library: Friction in the teflon funnel. In: Gregory, L. & Higgins, S., (Eds.), *Information literacy and social justice: Radical professional praxis*. Sacramento: Litwin Books, pp.275-296.

Salmons, J. (2012). *Cases in online interview research*. Thousand Oaks, CA: Sage Publications Ltd.

Samek, T. (2009). Questioning library neutrality: Essays from progressive librarian. *Progressive Librarian*, 32, 74-75,88.

Saracevic, T. (2014). Information literacy in the United States: Contemporary transformations and controversies. In: Kourbanglu, S., Špiranec S., Grassian E., Mizrahi, D., Catts, R. (Eds) *Information Literacy. Lifelong learning and digital citizenship in the 21st century*. ECIL 2014. *Communications in Computer and Information Science*, 492. Springer, Cham, pp.19-30.

Saunders, B, Kitzinger, J, & Kitzinger, C. (2015). Participant anonymity in the internet age: from theory to practice. *Qualitative Research In Psychology*, 12(2), 125-137.

Saunders, L. (2012). Faculty Perspectives on information literacy as a student learning outcome. *Journal of Academic Librarianship*, 38(4), 226-236.

Saunders, L. (2015). Education for instruction: A review of LIS instruction syllabi. *The Reference Librarian*, 56(1), 1-21.

Schachter, D. (2018a). Critical information literacy teaching in British Columbia academic libraries. Paper presented at: IFLA WLIC 2018 – Kuala Lumpur, Malaysia. Available from: <http://library.ifla.org/id/eprint/2151>.

Schachter, D. (2018b). Critical information literacy teaching in Canadian academic libraries. Paper presented at: *European Conference on Information Literacy* (ECIL), September 2018.

Schensul, J. (2012). Methodology, methods, and tools in qualitative research. In: Lapan, S., Quartaroli, M., & Riemer, F., (Eds.). *Qualitative research: an introduction to methods and designs*. San Francisco, Calif.: Jossey-Bass, pp69-103.

Schilhab, T. (2007). Knowledge for real: On implicit and explicit representations and education. *Scandinavian Journal of Educational Research*, 51(3), 223-238.

Schroeder, R. (2014). *Critical journeys: How 14 librarians came to embrace critical practice*. Duluth, Minn.: Litwin Books.

Schroeder, R. & Hollister, C. (2014). Librarians' views on critical theories and critical practices. *Behavioral & Social Sciences Librarian*, 33(2), 91-119.

Schwandt, T. (2007). *The Sage Dictionary of Qualitative Inquiry* (3rd ed.). Thousand Oaks: SAGE Publications.

Seale, M. (2013). The neoliberal library. In: *Information literacy and social justice: Radical professional praxis*. Sacramento: Library Juice Press, 39-62.

Seale, M. (2015). Enlightenment, neoliberalism, and information literacy. *CAPAL 2015*, 1-13. Available from: http://capalibrarians.org/wp/wp-content/uploads/2015/06/7A_Seale_paper.pdf.

Secker, J. (2017). Chapter J. Region: Europe. In: ACRL Student Learning and Information Literacy Committee (Eds.). *Global perspectives on information literacy: Fostering a dialogue for international understanding*, pp.99-109. Available from: <http://acrl.libguides.com/slilc/home>

Seeber, K. (2015). This Is really happening: Criticality and discussions of context in ACRL's "Framework for Information Literacy". *Communications in Information Literacy*, 9(2), pp.157–163.

Selkirk College (2005). *Library Services*. Available from: http://policies.selkirk.ca/media/about-web-section/governance/college-policies/SK14007_Library_Services.pdf.

Sensoy O. & DiAngelo, R. (2012). *Is everyone really equal: an introduction to key concepts in social justice education*. New York: Teachers College Press.

Shenton, Andrew K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63-75.

Shor, I. (1992). *Empowering education: critical teaching for social change*. Chicago; London: University of Chicago Press.

Shor, I. (1999). What is critical literacy? *The Journal of Pedagogy, Pluralism and Practice*. 1(4). Available from: <https://digitalcommons.lesley.edu/jppp/vol1/iss4/2>

Shor, I. (2009). What is critical literacy? In: Darder, A., Baltodano, M. & Torres, R. (Eds.) *Critical pedagogy reader*, 2nd ed. New York: Routledge.

Silverman, D. (2000). *Doing qualitative research: A practical handbook*. London: Sage.

Simmons, M.H. (2005). Librarians as disciplinary discourse mediators: using genre theory to move toward critical information literacy. *Portal: Libraries and the Academy*, 5(3), 297-311.

Sinkinson, C. & Lingold, M. (2010). Re-visioning the library seminar through a lens of critical pedagogy. In: Accardi, M., Drabinski, E., & Kumbier, A. (Eds.) *Critical Library Instruction: Theories & Methods*. Sacramento: Library Juice Press.

Skukauskaitė, A. (2012). Transparency in transcribing: making visible theoretical bases impacting knowledge construction from open-ended interview records. *Forum: Qualitative Social Research*, 13(1).

Smith, L. (2013). Towards a model of critical information literacy instruction for the development of political agency. *Journal of Information Literacy*, 7(2), 15-32.

The Society of College National and University Libraries (SCONUL) Advisory Committee on Information Literacy (1999). *Briefing paper: Information skills in higher education*. Available from:
https://sconul.ac.uk/sites/default/files/documents/Seven_pillars2.pdf.

SCONUL Working Group on Information Literacy (2011). The SCONUL Seven Pillars of Information Literacy: Core model for higher education. Available from:
<https://www.sconul.ac.uk/sites/default/files/documents/coremodel.pdf&sa=U&ved=0ahUKEwiKn7vEmsbeAhXPHzQIHf0kArAQFggEMAA&client=internal-uds-cse&cx=009124166027353723427:albhbmg5c68&usg=AOvVaw0fXyupagq6j8Snp1TSw1Df>

Statistics Canada (2016). *The Daily*, 2016-09-07. Available from:
<https://www150.statcan.gc.ca/n1/dai-quo/index-eng.htm?HPA=1>.

Statistics Canada (2017). *Education in Canada*. Available from:
<https://www.statista.com/topics/2863/education-in-canada/>

Sue, V. M., & Ritter, L.A. (2012). *Conducting online surveys*. Thousand Oaks, CA: SAGE Publications Ltd.

Swanson, T. (2004). A radical step: implementing a critical information literacy model. *Libraries and the Academy*, 4(2), 259-273.

Swanson, T. (2005). Applying a critical pedagogical perspective to information literacy standards. *Community & Junior college Libraries*, 12(4), 65-77.

Swanson, T. (2011). A critical information literacy model: library leadership within the curriculum. *Community College Journal of Research and Practice*. 35(11), 877-894.

Swanson, T. & Jagman, H. (Eds.) (2015). *Not just where to click: teaching students how to think about information*. Chicago: Association of College and Research Libraries.

Tewell, E. (2015). A decade of critical information literacy. A review of the literature. *Communications in Information Literacy*, 9(1), 24-43.

Tewell, E. (2016). Putting critical information literacy into context: How and why librarians adopt critical practices in their teaching. *In the Library with the Lead Pipe*.

Tewell, E. (2018). The practice and promise of critical information literacy: academic librarians' involvement in critical library instruction. *College and Research Libraries*, 79(1), 10-34.

Thomas S. (2008). Transliteracy and new media. In: Adams R., Gibson S., Arisana S.M. (Eds.) *Transdisciplinary Digital Art. Sound, Vision and the New Screen. Communications in Computer and Information Science*, 7. Available from: https://doi-org.ezproxy.is.ed.ac.uk/10.1007/978-3-540-79486-8_10

Thomson-Bunn, H. (2014). Are they empowered yet?: Opening up definitions of critical pedagogy. *Composition Forum* 29 (Spring 2014). Available from: <http://eric.ed.gov/?id=EJ1021997>.

Tilley, L. & Woodthorpe, K. (2011). Is it the end for anonymity as we know it? A critical examination of the ethical principle of anonymity in the context of 21st century demands on the qualitative researcher. *Qualitative Research*, 11(2), 197–212.

Todd, R. (2015). A theory of information literacy: in-formation and outward looking, In: Bruce, C. & Candy, P., (Eds.), *Information literacy around the world: advances in programs and research*, Wagga Wagga, Australia: Centre for Information Studies, Charles Sturt University, pp163-175.

Torres, C.A. (2007). Transformative social justice learning: the legacy of Paulo Freire, In: Cote, M., Day, R.J.F. & De Peuter, G., (Eds.) *Utopian pedagogy: Radical experiments against neoliberal globalization*. Toronto: University of Toronto Press, pp242-247.

Trescases, U. (2008). The role of the library in the first college year: The Canadian perspective. *Reference Services Review*, 36(3), 301-311.

Tri-Council (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, Social Sciences and Humanities Research Council of Canada) (2014). *Tri-Council policy statement: Ethical conduct for research involving humans*. Ottawa: Secretariat on Responsible Conduct of Research. Available from: <http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default/>

Truth and Reconciliation Commission of Canada (2012). *Calls to action*. Winnipeg: Truth and Reconciliation Commission of Canada. Available from: http://trc.ca/assets/pdf/Calls_to_Action_English2.pdf

Tuominen, K., Savolainen, R., & Talja, S. (2005). Information literacy as a sociotechnical practice. *Library Quarterly*, 75(3), 329-345.

United Nations (UN) (2007). *United Nations declaration on the rights of indigenous peoples*. Geneva: United Nations. Available from: https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

United Nations Educational, Scientific and Cultural Organization (UNESCO) (2005). *Alexandria proclamation on information literacy and lifelong learning*. Available from: http://portal.unesco.org/ci/en/ev.php-URL_ID=20891&URL_DO=DO_TOPIC&URL_SECTION=201.html

UNESCO (2005). *Education for all: literacy for life*. Paris: UNESCO. Available from: http://www.ungei.org/resources/index_581.html

UNESCO (2008). *Towards information literacy indicators*. Paris: UNESCO. Available from: http://portal.unesco.org/ci/en/files/26348/12070387513Towards_Information_Literacy_Indicators-_final_version.doc/Towards%2BInformation%2BLiteracy%2BIndicators-%2Bfinal%2Bversion.doc

UNESCO (2009). *Information literacy*. Available from: http://portal.unesco.org/ci/en/ev.php-URL_ID=27055&URL_DO=DO_TOPIC&URL_SECTION=201.html.

UNESCO (2013). *Media and information literacy: policy and strategy guidelines*. Paris: UNESCO, Available from: <http://unesdoc.unesco.org/images/0022/002256/225606e.pdf>

UNESCO (2003). *The Prague declaration: towards an information literate society*. Paris: UNESCO. Available from: http://portal.unesco.org/ci/en/ev.php-URL_ID=19636&URL_DO=DO_TOPIC&URL_SECTION=201.html

University of British Columbia (2004). *Deaccession of works of art and/or cultural materials for the Morris and Helen Belkin Art Gallery, the University Library, and the Museum of Anthropology*. Available from: <https://universitycounsel.ubc.ca/policies/policy128.pdf>.

Vaismoradi, M., Jones, J., Turunen, H. & Snelgrove, S. (2016). Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice*, 6(5), 100-110.

Vanderpol, D. & Swanson, E. (2013). Rethinking roles: Librarians and faculty collaborate to develop students' information literacy. *Journal of Library Innovation*, 4(2), 134-148.

Vasquez, V. (2017). *Critical Literacy*. Oxford research encyclopedia of education. Oxford: Oxford University Press.

- Virkus, S. (2003). Information literacy in Europe: a literature review. *Information Research*, 8(4), 159. Available from: www.informationr.net/ir8-4/paper159.html.
- Vogel, S. (1991). The future of radical librarianship. *New Library World*, 92(2), 4-5.
- Walford, G. (2005). Research ethical guidelines and anonymity. *International Journal of Research & Method in Education*, 28(1), 83-93.
- Walsh, J. (2011). The future of information literacy instruction. In: Walsh, J. (Ed.). *Information Literacy Instruction: Selecting an Effective Model*. Oxford: Chandos Publishing, pp153-183.
- Ward, D. (2006). Revisioning information literacy for lifelong meaning. *Journal of Academic Librarianship*, 32(4), pp.396–402.
- Weaver, K.D. & Tuten J.H. (2014). The critical inquiry imperative: information literacy and critical inquiry as complementary concepts in higher education. *College & Undergraduate Libraries*, 21(2), 136-144.
- Webber, S., & Johnston, B. (2000). Conceptions of information literacy: New perspectives and implications. *Journal of Information Science*, 26(6), 381-397.
- Webber, S. & Johnston, B. (2006). Working towards the information literate university. In: Walton, G. & Pope, A. (Eds.) *Information Literacy: Recognizing the Need*. Oxford: Chandos Publishing, pp42-53.
- Webber, S. & Johnston, B. (2017). Information literacy: Conceptions, context and the formation of a discipline. *Journal of Information Literacy*, 11(1), 156-183.
- Webster, F. (2002). The information society as post-industrialism. In: Webster, F. (Ed.) *Theories of the Information Society*, 2nd ed. London: Routledge, pp30-58.
- Weiner, S.A., Jackman, L.W., & Prause, E. (2013). Strategizing for public policy: the information literacy state proclamation project. *Public Services Quarterly*, 9, 284-299.
- West, Q. (2013). Information literacy cooperation by design: Review of a guided collaboration between teaching and library faculty. *College & Research Libraries News*, 74(4), 202-204.
- Westbrock, T. & Fabian, S. (2010). Proficiencies for instruction librarians: Is there still a disconnect between professional education and professional responsibilities? *College & research Libraries*, 71(6), 569-590.

Whitehead, M.J. & Quinlan, C.A. (2002). *Canada: an information literacy case study*. White Paper prepared for UNESCO, the U.S. National Commission on Libraries and Information Science, and the National Forum on Information Literacy, for use at the Information Literacy Meeting of Experts, Prague, The Czech Republic. Available from: <http://www.nclis.gov/libinter/infolitconf&meet/papers/quinlan-fullpaper.pdf>

Whitworth, A. (2009). *Information obesity*. Witney: Chandos Publishing.

Whitworth, A. (2012). The reflective information literacy educator. *Nordic Journal of Information Literacy in Higher Education*, 4(1), 38-55.

Whitworth, A. (2014). *Radical information literacy reclaiming the political heart of the IL movement*. Oxford: Chandos Publishing.

Wilkinson, L. (2015). Theories of knowledge in library and information science, In: Swanson, T. & Jagman, H. (Eds.) *Not just where to click: teaching students how to think about information*. Chicago: Association of College and Research Libraries, pp13-36.

Winterowd, W.R. (1989). *The culture and politics of literacy*. New York: Oxford University Press.

Zhang, Y & Wildemuth, B.M. (2009). Qualitative analysis of content. In: B. Wildemuth (Ed.), *Applications of social research methods to questions in information and library science*. Westport, CT: Libraries Unlimited, pp.308-319.

Zurkowski, P. (1974). *The information service environment: Relationships and priorities*. Washington, D.C.: National Commission on Libraries and Information Science, NCLIS-NPLIS-5.

Appendices

Appendix 1: Survey and interview questions matrix (topic sets for survey)

Survey Plan

Themes	#	Link to RQ	Survey Q #	Question
Informed Consent			1	
Demographic Information (D1)	D1.1		2	What type of institution do you represent?
	D1.2		3	What is the location of your institution
	D1.3		4	How many librarians are employed by your library?
	D1.4		5	How many students does your library support? (student FTE of the institution)
	D1.5		6	How many years have you been an academic librarian?
	D1.6		7	Teaching is described as ... (include definition prior to question) How many years do you have of teaching in academic library or classroom settings?
	D1.7		8	What percentage of your time is involved in teaching in your library setting?
	D1.8		9	Are you responsible for library pedagogical practices at your institution?
	D1.9		10	Which are the librarian roles involved in developing library pedagogical practices at your institution?

Theme 1 (T1): Challenges to library pedagogy in the academic environment (Please answer these questions based on your experience teaching information literacy at your institution)

T1.1	1	11	What help, support or training have you had to help develop your understanding and application of pedagogy and information literacy into your teaching practice? Provide examples (open ended)
T1.2	1	12	In your experience in teaching, how would you like to improve library teaching in your institution?
T1.3	1	13	In your experience, are there barriers to incorporating new theoretical approaches into library instruction.
T1.4	1	14	If yes: In your experience, these barriers include...
T1.5	1	15	In your institution, how would you describe the relationship between librarians and the discipline faculty members, with respect to the teaching of information literacy?
T1.6	1	16	The evaluation or measures of success in information literacy teaching at your institution include:
T1.7	1	17	In your experience, what would you describe as the situations or factors leading to your least success in teaching information literacy:
T1.8	1	18	In your experience, what would you describe as the situations or factors leading to your greatest success in teaching information literacy:

Theme 2 (T2): Understanding/perceptions of "critical information literacy"

T2.1	1.2	19	As a library practitioner, to what extent are you able to spend time learning more about theories of pedagogy and information literacy instruction?
T2.2	1.2	20	You are already familiar with the concepts of information literacy. How familiar are you with the term "critical" information literacy"?

T2.3	1.2	21	Critical information literacy is a term in development. Which statement (or statements) best define critical information literacy, in your mind? (select a definition?)
T2.4	1.2	22	What opportunity or supports have you had to learn about critical information literacy in academic library practice?
T2.5	1.2	23	Do you see a need to better understand "critical" information literacy for application in your teaching practice?
T2.6	1.2	24	Within your library's practices, where, if any, do you see a need for learning more about critical information literacy (CIL)? (e.g. understanding more about the theories underlying; applying in a meaningful way in practice)
T2.7	1.2	25	From your recent information literacy classes, please give an example of applying critical information literacy in your teaching practice:
T2.8	1.2	26	If no, please explain why...

Theme 3 (T3): Use of the new ACRL Framework and criticality in the Framework

T3.1	1.3	27	Have you had an opportunity to review the new ACRL Framework on Information Literacy?
T3.2	1.3	28	If you are familiar with the new ACRL Framework for information Literacy, how have you considered applying it in your teaching practices?
T3.3	1.3	29	What help or supports have you had to applying the ACRL Framework in practice? Please describe.
T3.4	1.3	30	To what extent do you feel you understand the educational theories behind the new ACRL Framework?
T3.5	1.3.1	31	Some of the educational theories that underlie the new ACRL Framework include...
T3.6	1.3.1	32	From your experience working with information literacy standards, do you feel that the new ACRL Framework will have an impact on the information literacy practices in your institution?

Interview	T3.8	1.3	33	To what extent has your academic library incorporated any changes in teaching practices based on the new ACRL Framework
	T3.9	1.3	34	Please describe what are some ways that you are changing your information literacy practices based on the new ACRL Framework in your academic library.
	T3.10		35	If you are already using the Framework, are there areas that you find challenging to apply in practice?
	T3.11		36	Any additional comments about the ACRL Framework?
			37	I am willing to participate in an interview on the topic of applying critical information literacy in academic library teaching in British Columbia? (if yes, provide name and contact information)

Appendix 2: Interview schedule sample

Name:

Pseudonym:

Demographic: Confirm based on the individual survey response

- Gender:
- Educational / academic background:
- Expertise (How long teaching? How long working in an academic library environment):
- Level of seniority in role at institution / How many years with the institution:
- Type of institution:
- Type of region:

Theme 1: Challenges to library pedagogy in the academic environment

1. <Process > From the survey results, I learned a lot about the different ways that information literacy is taught at institutions, and I am wondering about the **planning** that goes into the processes.

Please describe how information literacy teaching is **organized and planned** in your library setting (prompt: specificity of roles; shared with other librarians, on demand or as needed basis; with faculty members or departments, guidelines; semester planning;).

2. <Process & influencers> In the survey, I already asked about the relationships between librarians and the members of the faculty from the disciplines.
 - a. What are some of your further thoughts about how librarians and the discipline faculty interact and engage in the teaching of information literacy?
 - b. Do you have any thoughts about how administrators have an impact on information literacy teaching? (i.e. library or faculty or VP level? Support, guidelines, policy)
3. <Process; success> In the survey there was a range of answers to the question of how librarians measure the success of their teaching. People wrote about their individual teaching experiences, such as seeing success as collaborating closely with faculty, or having the assignment linked to the coursework. Some of the measures in institutions were soft measures rather than standardized measures of success.
 - a. To what extent does your library develop any standardized measure of success? (I think in the survey you mentioned there are none?)
 - b. How were these measures developed (and modified?)
 - c. What are some ways in which your librarians share ways to improve information literacy teaching, in your academic environment? (i.e. how are measures of success & their outcomes shared for improvement of teaching?)
 - d. **If not already discussed:** Do you review librarian teaching practices? Peer review or student feedback, or use team teaching or collaborative practices?

4. <Process; Measures of success> I'm also curious about the institution's perspective of success, rather than as an individual teaching experience. For example, addressing specific outcome measures is one way that academic institutions measure success.

Do you have a perspective on measures of success related to IL teaching at the institutional level (i.e. how are measures of success measured within the institution)?

5. <Process; policy/guidelines> Some academic institutions have built skills acquisition into their program development process. This may include literacy skills, for example.
 - a. How does your academic institution incorporate information literacy into any first year (undergraduate) or general education program (if indeed it has one)?
 - b. In your experience at your institution, what are some ways that librarians are being involved in the identification/inclusion of core skills into curriculum? (Prompts: i.e. are librarians involved in committees? Part of approval process for new course/curriculum/degree development such as through approval processes?)
 - c. Follow-up: At the institution-wide level, what are the processes (or guidelines) that incorporate library teaching into curriculum development, if any? (University policy or guidelines? Library policy or guidelines?)
6. <Theory in practice; Pedagogy> I'm very interested to hear about any teaching & learning approaches that you use in your teaching practices.
 - a. In what ways do you use look to different approaches to teaching in your practices, either over time or context?). (Prompt: learning about theory and applying in practice?)
 - b. Where do you look for information on any developments in library teaching practices?
 - c. Any ideas for how to improve the learning and application of theory within the local or BC library teaching context?

Theme 2: Understanding/perceptions (and application of) critical information literacy (CIL)

7. You indicated that you see there are barriers to incorporating new theoretical approaches into library instruction. Would you please describe what you mean?
8. <Theory; Definition> From the survey, you may remember that there were specific questions about critical information literacy. I have been interested in some of the survey responses regarding how librarians are looking more **critically** at our overall library practices today.
 - a. I am wondering, from your perspective, how would you describe ways that you or your library is using any critical approaches in developing or modifying your practices (beyond teaching)?
 - b. Prompt – **beyond** information literacy teaching, any other developments in library practices where you apply a critical lens? (could involve indigenizing the library/de-colonising; social justice)

perspectives related to guides, collection development, outreach, beyond the teaching work)

9. Why do you think libraries have been taking a more critical approach to library practices in recent years?
10. <Theory in Practice> I understand from the survey that you feel comfortable with this concept (or have an awareness of this concept).
 - a. How would you define it, based on your understanding?
 - b. are there aspects of CIL that you see possible to apply in your teaching practices within your institution, such as by building on existing practices? (possibly to address social justice implications, or potentially linked to the indigenization of the curriculum)?
 - c. Prompt: Or how do you apply CIL already)?

Theme 3: Use of the new ACRL Framework and criticality in the Framework (again, adjust this for the specific individual, based on their survey responses)

11. In the survey I also asked a bit about the ACRL Framework. Please tell me a bit more about your experiences learning about the new ACRL *Framework*.
12. Please tell me about your experience and interest in applying the *Framework* in your teaching practice (or the IL practices in your institution).
13. The ACRL Framework is a set of guidelines that are recommended by ACRL, but obviously not a requirement of library practice. On the local level, what policies or guidelines do your library or educational institution have related to conducting information literacy teaching?
 - a. What are your thoughts on the benefits or opportunities that would come from policies related to information literacy teaching?
 - b. What about potential for guidelines or policies at a broader level, such as across the province or for Canada as a whole? What are your thoughts of whether this would be possible or beneficial to the work of academic librarians?
 - c. How might that be accomplished?
14. There is a wide range of institution type and regional or economic differences between public academic institutions in B.C. In your view, how, if at all, does the size, location or nature of the academic institution impact the teaching practices?
15. Is there anything else I should have asked or you wondered why I didn't ask, either in the survey or in interview?

Appendix 3: Participant interviews (list of interviews/participants)

Interview participant	Abbreviation	Gender	Years of Experience	Pseudonym
Pilot Participant 1	PP1	Male	30	Dario
Pilot Participant 2	PP2	Female	20	Deanna
Research Participant 1	RP1	Male	11	Simon
Research Participant 2	RP2	Female	1	Wanda
Research Participant 3	RP3	Female	3.5	Katharine
Research Participant 4	RP4	Female	3.5	Hailey
Research Participant 5	RP5	Female	23	Monica
Research Participant 6	RP6	Male	12	Dennis
Research Participant 7	RP7	Female	16	Rose
Research Participant 8	RP8	Male	9	Martin
Research Participant 9	RP9	Female	5	Lynette
Research Participant 10	RP10	Female	16	Nicola
Research Participant 11	RP11	Female	11	Jessica
Research Participant 12	RP12	Female	32	Talya

Appendix 4: Informed consent



Participant Information and Consent Form - Survey

As part of my EdD research in the School of Education at the University of Edinburgh, I am surveying librarians responsible for leading information literacy and library education processes within public higher education institutions in B.C. I am hoping to learn about how librarians are considering and utilizing the new ACRL Framework, and their interest, understanding and application of the concept of critical information literacy.

This survey collects information that will be used to compare across institution types and to provide a picture of what is happening in library instruction. Collection of personal information is limited to non-identifiable information, such as length of tenure and experience as a librarian. The survey will also help me to identify individuals who may be willing to participate in a more depth interview.

Data collected will be secured on the researcher's computer, within B.C., in compliance with BC FIPPA.

Please check the boxes to indicate your agreement to participate in this survey on behalf of your institution:

- ☐ I understand that I am being interviewed as part of Debbie Schachter's EdD research project at the University of Edinburgh.
- ☐ I understand the purpose of this research and that I am able to ask questions about it at any time.
- ☐ I am willing for anonymised extracts from this interview to be used as part of the research.
- ☐ I am willing to be contacted about participating in an interview to be used as part of the research.
- ☐ I understand that the data Debbie collects will – though fully anonymized – appear in publications relevant to this area of research.

Survey respondent:

Date:



Participant Information and Consent Form - Interview

As part of my EdD research in the School of Education at the University of Edinburgh, I am interviewing librarians responsible for leading information literacy and library education processes within public higher education institutions in B.C. Following an initial survey in which you participated, I am hoping to learn more about library practices at your institution. The interview will involve open ended questions regarding practices and policies at your institution.

I hope that you may find the results of my study useful in developing and supporting the practices at your institution. If you would like to be kept informed of publications and other materials related to this research, please tick this box ☐ (Please note that I will keep your contact details on file, but will use them only in relation to this research project).

Data collected will be secured on the researcher's computer, within B.C., in compliance with BC FIPPA.

Please check the boxes to indicate your agreement to participate in this interview on behalf of your institution:

☐ I understand that I am being interviewed as part of Debbie Schachter's EdD research project at the University of Edinburgh.

☐ I understand the purpose of this research and that I am able to ask questions about it at any time.

☐ I am willing for this interview to be digitally recorded and transcribed for use as part of the research.

☐ I am willing for anonymised extracts from this interview to be used as part of the research.

☐ I understand that the data Debbie collects will – though fully anonymized – appear in publications relevant to this area of research.

Interviewee: _____ Date: _____
Interviewer: _____ Date: _____

Appendix 5: Research Nodes

NVIVO Node Name	Sources	References
Lack of resources	2	4
Time	2	14
Communicating the importance or value of IL teaching	19	325
Understanding importance of information literacy	2	14
Importance of administrators	17	62
Relationships with teaching faculty	19	208
Collaboration with teaching faculty	3	15
Teaching faculty perception of librarian IL role	5	15
Involvement in curriculum development	6	19
Depending on faculty relationships	8	34
Creating relationships with faculty	6	26
Communication between faculty and librarian	1	1

Support for learning	41	156
Sharing resources amongst libraries	14	51
Importance of library peer support	14	48
Conferences and listservs	6	6
Developing IL policy	14	126
Institutional learning outcomes	12	46
Creating Provincial Guidelines	12	34
Localizing IL frameworks	3	6
Standardizing practices	7	12
New Theoretical Approaches	43	542
Understanding the framework	1	1
Applying critical approaches to library services	31	249
Taking a critical lens to practices	2	6
Defining critical approaches to librarianship	3	15
Applying CIL	30	128

Teaching Strategies for Critical IL	3	11
Examples of CIL in practice	1	11
Applying Social Justice Aspects of CIL	9	22
Different national perspectives on critical librarianship	5	11
Indigenizing the library	12	34
Barriers to incorporating new theoretical approaches	30	99
Applying new theoretical approaches	11	41
Partnering with T&L or Writing Centre	7	13
Learning about theories behind practices	32	93
Awareness of theoretical approaches	1	2
Learning about CIL	22	37
Learning about pedagogy and teaching	12	36
Leadership	1	1
Defining CIL	14	44

IL Teaching Practice	46	974
Evaluation or measures of success	36	136
Librarian attitudes to teaching	8	31
Reflective practice	4	9
Relationship between reference and IL teaching	1	4
Organizing work	14	72
Relying on pedagogical knowledge or teaching background	1	1
Determining IL needs of students and faculty	8	31
Creating relationships with students	9	28
Changes to IL practices based on Framework	32	205
Perceptions of Framework	17	45
Impact of Framework on teaching	24	67
Identifying challenges to applying Framework	3	8
Support for applying Framework	19	37
Differences in institutions impacting IL teaching	12	69

practices		
Describing the process of research	8	10
Embedding information literacy	13	33
Attitudes to change	2	4
Success factors	33	118
Students as scholars and CIL	1	2
Applying technology to achieve IL	2	12
Improving library teaching	40	113
Teaching specific skills	2	5
Expressing library values	5	10
Describing teaching philosophy	8	35

Appendix 6: Word cloud of Interview participants' definitions of Critical information Literacy



Appendix 7: The ACRL Framework for Information Literacy for Higher Education

The six frames of the ACRL Framework are accessible through the ACRL website: <http://www.ala.org/acrl/standards/ilframework#frames> (ACRL, 2015)

Authority Is Constructed and Contextual

Information Creation as a Process

Information Has Value

Research as Inquiry

Scholarship as Conversation

Searching as Strategic Exploration